



Scientific Program

Day 3 | May 20th (Fri), 2016

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CCR 3 Proximal Humerus Fractures

07:00~08:20 / Tamna Hall A

Chairman: Herbert RESCH (Austria)



- CCR 3-1 Decision Making in Fracture Treatment: Acceptable Displacement**
Robert J. NEVIASER
George Washington University, USA
- CCR 3-2 Understanding the Proximal Humeral Fracture: Anatomy and Classification**
Michael J. SANDOW
Wakefield Orthopaedic Clinic, Australia
- CCR 3-3 Functional and Structural Outcomes after Reversed Shoulder Arthroplasty (RSA): Bony Increased-offset RSA (BIO-RSA) versus Non BIO-RSA**
Philippe COLLIN
Centre Hospitalier Privé Saint Grégoire, France
- CCR 3-4 Proximal Humerus Fractures; Advanced Technical Aspects of Open Reduction and Internal Fixation**
Joseph A. ABOUD
Rothman Institute at Jefferson, USA
- CCR 3-5 How do I do a Hemi/ Reverse for Fracture? - My Technique and Anticipated Outcomes**
Nikola CICA
AKROMION Special Hospital for Orthopaedic Surgery Krapinske Toplice, Croatia
- CCR 3-6 Minimally Invasive Plate Osteosynthesis (MIPO) of Proximal Humeral Fracture**
Chanakarn PHORNPHUTKUL
Chiang Mai University, Thailand

ICL 5 Current Solutions in Rotator Cuff Repair

07:00~08:20 / Halla Hall

Chairman: William J. MALLON (USA)

- ICL 5-1 Full Thickness Rotator Cuff Tear. Diagnostic Evaluation and Suggestion of a Treatment Algorithm**
Klaus BAK
Aleris-Hamlet Parken Private Hospital, Copenhagen, Denmark
- ICL 5-2 Biologic Stimulation of Rotator Cuff Repair: New Ideas**
Ronald L. DIERCKS
University Medical Center Groningen, University of Groningen, Netherlands
- ICL 5-3 Single or Double Row Fixation for Rotator Cuff Tears in Young Patients?**
Michael E. HANTES
Faculty of Medicine University of Thessalia University Hospital of Larissa, Greece
- ICL 5-4 Arthroscopic Rotator Cuff Repair: MRI Assessment of Tendon Healing**
Craig M. BALL
Auckland Bone and Joint Surgery, New Zealand
- ICL 5-5 Rotator Cuff Tear with Stiffness**
Yang-Soo KIM
The Catholic University of Korea, Seoul St. Mary's Hospital, Republic of Korea
- ICL 5-6 Muscle Transfers in Case of Irreparable Cuff Tear**
Jenő KISS
St. John's Hospital, Hungary

ICL 6 Solutions for Arthritis Elbow

07:00~09:00 / Samda Hall

Chairman: Shawn W. O'DRISCOLL (USA)

- ICL 6-1 Arthroscopic Osteocapsular Arthroplasty in Primary Elbow Osteoarthritis**
Min Jong PARK
Samsung Medical Center, Republic of Korea
- ICL 6-2 Biomechanical Background and Indication of Prosthetic Replacement**
Adam WATTS
Wrightington Hospital, United Kingdom
- ICL 6-3 Linked Type TER: Clinical Results and How to Avoid Complications**
Srinath KAMINENI
University of Kentucky, USA
- ICL 6-4 Long Term Clinical Results (Over 10 Years) of Kudo Resurfacing Total Elbow Arthroplasty**
Katsunori INAGAKI
Showa University School of Medicine, Japan
- ICL 6-5 Convertible TER**
Shawn W. O'DRISCOLL
Mayo Clinic, USA

OP 19 (Shoulder) Arthritis and Arthroplasty 5

08:30~09:30 / Tamna Hall A

Moderators: Osvandre LECH (Brazil), Joseph P. IANNOTTI (USA)

- OP 19-1 Pre-Operative Planning and Patient Specific Guides Can Improve Functional Outcomes in Reverse Shoulder Arthroplasty; A Biomechanical Study**
08:30-08:35
Andreas KONTAXIS¹, Julien BERHOUE^{1,3}, Daniel CHOI², Xiang CHOI² and Lawrence GULOTTA³
¹Department of Leon Root Motion Analysis Laboratory, Hospital for Special Surgery, USA, ²Department of Biomechanics, Hospital for Special Surgery, USA, ³Department of Sports Medicine and Shoulder Service, Hospital for Special Surgery, USA
- OP 19-2 Rate of Improvement in Clinical Outcomes with Anatomic and Reverse Total Shoulder Arthroplasty**
08:35-08:40
Ryan SIMOVITCH¹, Pierre-Henri FLURIN², Yann MARCZUK³, Richard FRIEDMAN⁴, Thomas WRIGHT⁵, Joseph ZUCKERMAN⁶ and Christopher ROCHE⁷
¹Department of Orthopaedics, Palm Beach Orthopaedic Institute, USA, ²Department of Orthopaedics, Bordeaux-Merignac Clinic, France, ³Department of Orthopaedics, Chenieux Clinic, France, ⁴Department of Orthopaedics, Medical University of SC, USA, ⁵Department of Orthopaedics, University of Florida, USA, ⁶Department of Orthopaedics, NYU Hospital for Joint Diseases, USA, ⁷Department of Extremities, Exactech, Inc, USA
- OP 19-3 The Extended Humeral Osteotomy: A Novel Technique for Complete Removal of a Well-Fixed Humeral Stem under Direct Visualization**
08:40-08:45
Samuel HARMSEN, Travis TORNGREN, Danielle CASAGRANDE, James D KELLY and Tom NORRIS
Department of Orthopaedic Surgery, The San Francisco Shoulder, Elbow and Hand Clinic, USA
- OP 19-4 Radiographic Examination of the Glenoid Component and Mid-Term Functional Outcomes Following Humeral Head Resurfacing with Insertion of a Cemented Inlay Polyethylene Glenoid Component**
08:45-08:50
Jason COLLINS, Eric WHERLEY, Mark HAIMES, John ZVIJAC, Luis VARGAS and John URIBE
Department of Orthopaedic Surgery, UHZ Orthopaedic Institute, USA
- 08:50-08:58 **Q & A**

OP 19-5 Factors Associated with Glenoid Revision in Conventional Total Shoulder Replacement: An AOA National Joint Replacement Registry Analysis
08:58-09:03

Richard S PAGE^{1,2}, Stephen GRAVES³, Richard De STEIGER³, Peter LEWIS³, Ann TOMKINS³, Sophia RAINBIRD³ and Lan KELLY³
¹Department of Orthopaedic Surgery, University Hospital Geelong, Australia, ²Department of School of Medicine, Deakin University, Australia, ³Department of National Joint Replacement Registry, Australian Orthopaedic Association, Australia

OP 19-6 Does Brachial Plexus Exploration Facilitate Revision Surgery for Reverse Total Shoulder Arthroplasty? Case Series.
09:03-09:08

Edward George MCFARLAND
Division of Shoulder Surgery, Orthopaedic surgery department, The Johns Hopkins School of Medicine, USA

OP 19-7 Comparative Study of Total Shoulder Arthroplasty versus Total Shoulder Surface Replacement for Glenohumeral Osteoarthritis with Minimum 2 Years Follow up.
09:08-09:13

Bauke KOOISTRA¹, **Jaap WILLEMS**^{1,2}, Eelke LEMMENS¹, Bas HARTEL¹, Michel Van Den BEKEROM¹ and Derek Van DEURZEN¹
¹Department of Orthopaedic Surgery, Onze Lieve Vrouwe Gasthuis, Netherlands, ²Department of Orthopaedic Surgery, Laresse Kliniek, Netherlands

OP 19-8 Pyrocarbon Free Interposition Shoulder Arthroplasty: Preliminary Results from a Prospective Multicenter Study at 2-year Minimum Follow-up.
09:13-09:18

Jerome GARRET¹, Gilles WALCH², Marc Olivier GAUCI³, Charles DEZALY⁴, Daniel MOLÉ⁴, Arnaud GODENÉCHE², Mikael ETZNER⁵, Luc FAVARD⁶, Christophe LÉVIGNE¹ and François SIRVEAUX⁴
¹Department of Shoulder Elbow and Wrist Surgery, Clinique du Parc, France, ²Department of Shoulder surgery, Centre Orthopédique Santy, France, ³Sport and locomotion Institut, Hopital Pasteur 2, France, ⁴Department of Orthopedic surgery, Centre chirurgical Emile Gallé, France, ⁵Department of Orthopedic surgery, Sjukhuset, Sweden, ⁶Department of Orthopedic surgery, Hopital Trousseau, France

09:18-09:26 **Q & A**

OP 20 (Shoulder)

Miscellaneous 2

08:30-09:30 / Halla Hall

Moderators: Mehmet DEMIRHAN (Turkey), Giuseppe MILANO (Italy)

OP 20-1 Reverse Total Shoulder Arthroplasty for Cuff Arthropathy Improves Shoulder Proprioception
08:30-08:35

Joanna WALECKA², Przemol LUBIATOWSKI², **Georgios AREALIS**¹, Paolo CONSIGLIERE¹ and Ofer LEVY¹
¹Reading Shoulder Unit, Royal Berkshire Hospital and Berkshire Independent Hospital, United Kingdom, ²Department of Trauma and Orthopaedics, Rehasport Clinic Poznan, Poland

OP 20-2 Distal Median Neuropathy is a Complication of Shoulder Arthroplasty
08:35-08:40

Adam LORENZETTI¹, Kaitlyn N. CHRISTMAS², Brent STEPHENS¹ and **Mark A. MIGHELL**¹
¹Department of Shoulder & Elbow Surgery, Florida Orthopaedic Institute, USA, ²Department of Clinical Research, Foundation for Orthopaedic Research & Education, USA

OP 20-3 Finite Element Analysis of Effects of Surgical Variations on Joint Stability and Contact Pressures in Total Shoulder Arthroplasty with Severe Glenoid Retroversion
08:40-08:45

H. Mike KIM, William CONAWAY, Hwa Bok WEE and **Gregory LEWIS**
Department of Orthopaedics and Rehabilitation, Penn State Milton S. Hershey Medical Center, USA

OP 20-4 Pathology Review of Humeral Heads Obtained During Shoulder Arthroplasty
08:45-08:50

David COLLINS
Department of Orthopaedic Surgery, Baptist Health System - Arkansas, USA

08:50-08:58 **Q & A**

OP 20-5 Is Hybrid Single-Photon Emission Computed Tomography with CT Useful in Investigating Pain Following Shoulder Arthroplasty?
08:58-09:03

Gautam Deepak TALAWADEKAR, S YUSUF, M A SHAH, A PARTHIPUN, Nicholas J LITTLE and Vipul PATEL
Department of Orthopaedic surgery, Epsom & St Helier Hospitals NHS Trust, United Kingdom

OP 20-6 Correlation between Anatomy of Scapula and the Incidence of Rotator Cuff Tears and Glenohumeral Osteoarthritis via Radiological Study
09:03-09:08

Mohd Fairudz Bin MOHD MISWAN¹, Mohd Shahril Bin Mohd SAMAN², Seow Hui TEO³, Mohd Zubair AL-FAIADH³, Wuey Min NG³ and Mohd Razif Bin Mohd ALI³
¹Department of Orthopaedic Surgery, University of Technology MARA, Malaysia, ²Department of Public Health, University of Technology MARA, Malaysia, ³Department of Orthopaedic Surgery, University Malaya, Malaysia

OP 20-7 Shoulder Positions and Thoracic Outlet Syndrome (TOS)
09:08-09:13

Luciano Augusto POITEVIN^{1,2}
¹Department of Orthopaedic Surgery, Buenos Aires University Hospital, Argentina, ²Department of Anatomy, Buenos Aires Medical School, Argentina

09:13-09:19 **Q & A**

PP 10 (Shoulder)

Rotator Cuff 3

09:00-09:45 / Tamna Hall B

Moderators: Āshish BABHULKAR (India)

PP 10-1 The Application of Fixing-to-suture-base Technique in Rotator Cuff Repair with Regional Osteoporosis
09:00-09:05

Jinzhong ZHAO, Xiaoqiao HUANGFU and Xingguang YANG
Department of Sports Medicine, Shanghai Jiaotong University, Shanghai Sixth People's Hospital, China

PP 10-2 Biomechanical Study of a New Locking Sliding Knot – “HK-Knot”
09:05-09:10

Peter Wp YAU
Department of Orthopaedics and Traumatology, The Univeristy of Hong Kong, Hong Kong, China

PP 10-3 Quantitative Evaluation of Rotator Cuff after Arthroscopic Repair using MRI T2 Mapping
09:10-09:15

Daichi MORIKAWA¹, Koichi KAMATA¹, Hirotomo KUWAHARA¹, Kazuo KANEKO² and Masahiko NOZAWA¹
¹Department of Orthopaedics, Juntendo University Nerima Hospital, Japan, ²Department of Orthopaedics, Juntendo University, Japan

PP 10-4 What is the Cause of LHB Flattening and Hypertrophy in Cadaveric Study
09:15-09:20

Takashi KOBAYASHI and Yosuke SHIMA
Department of Orthopaedic Surgery, KKR Hokuriku Hospital, Japan

PP 10-5 How to Predict Range-of-Motion Deficit under General Anesthesia for Rotator Cuff Tears in Advance? : Local Anesthetic Injection and Ratio of Abduction to External Rotation
09:20-09:25

Doo-Hyung LEE, Jae Ho CHO and Seong-Yeon LIM
Department of Orthopaedic Surgery, Ajou University Hospital, Republic of Korea

PP 10-7 The Effect of Human Amniotic Membrane (HAM) on Tendon-bone Healing in Rotator Cuff Repair in a Rat Model
09:25-09:30

Nicholas A FERRAN, Vedran LOVRIC, Yan YU, Tomohiro NOMURA, Wade HARPER, Doron SHER, Jerome GOLDBERG and William R WALSH
Surgical and Orthopaedics Research Laboratory, University of New South Wales, Sydney, Australia, Australia

PP 10-8 Outcome of Rotator Cuff Repair by Anchor Type and Material - Findings of the New Zealand Rotator Cuff Registry
09:30~09:35

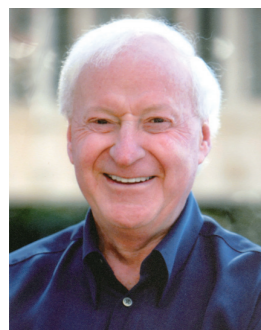
Michael Andrew CAUGHEY¹, Matthew BRICK², Anthony MAHER³, Warren LEIGH² and James MILLAR⁴
¹Department of Orthopaedic, Michael Caughey Ltd, New Zealand, ²Department of Orthopaedic, Millennium Institute, New Zealand, ³Department of Orthopaedic, Wanganui Hospital, New Zealand, ⁴Department of Surgery, Auckland University Medical School, New Zealand

PP 10-9 Efficiency in the Treatment of Calcifying Tendinopathy of the Shoulder: Extracorporeal Shockwave Therapy vs. Surgery
09:35~09:40

Silvia RAMÓN¹, Daniel MOYA², Pedro ALVAREZ³, Ramón CUGAT³ and Xavier CORBELLA⁴
¹Department of Rehabilitation and Physiotherapy, Hospital Quirón, Barcelona, Spain, ²Department of Orthopaedic Surgery, Buenos Aires British Hospital, Argentina, ³Department of Orthopaedic Surgery, Hospital Quirón, Barcelona, Spain, ⁴Faculty of Medicine and Health Sciences, Universitat Internacional de Catalunya, Barcelona, Spain

PP 10-10 New Geometrical Classification of Rotator Cuff Tears: Excellent Inter and Intra-observer Reliability
09:40~09:45

Luciano Andres ROSSI, Maximiliano RANALLETTA, Gaston MAIGNON, Tomas NICOLINO and Ruben PAOLETTA
Department of Orthopaedic Surgery, Hospital, Argentina



Neer Lecture

10:00~10:50 / Tamna Hall A

Chairman: William J. MALLON (USA)

The Journey Through Life and Orthopaedics

Richard J. HAWKINS
Steadman Hawkins Clinic of the Carolinas
USA

Symposium 8

Failed Rotator Cuff Repair: What to do?

11:00~12:00 / Tamna Hall A

Chairman: Jeffrey S. ABRAMS (USA)

SY 08-1 Why are Some Re-tears Painful and Others Not?

Roger EMERY
Imperial College London, United Kingdom

SY 08-2 How do We Define Healing of a Repaired Rotator Cuff Repair?

Joseph P. IANNOTTI
Cleveland Clinic, USA

SY 08-3 Biceps Bridge: Revision Cuff

Jeffrey S. ABRAMS
University Medical Center of Princeton, USA

SY 08-4 Biologic Augmentation in Revision Rotator Cuff Surgery

Giuseppe MILANO
Catholic University of Rome, Italy

SY 08-5 Arthroplasty Options for Failed Rotator Cuff Surgery

Benno EJNISMAN
Federal University of São Paulo, Brazil

SY 08-6 Investigation of the Timing and Risk Factors of the Retear after Rotator Cuff Repair

Kenji TAKAGISHI
Gunma University, Japan

Symposium 9

Acute Trauma of the Elbow: Current Solution

11:00~12:00 / Halla Hall

Chairman: Bernard F. MORREY (USA)



SY 09-1 Failed Osteosynthesis of Distal Humerus Fracture

Bernard F. MORREY
Mayo Clinic, USA

SY 09-2 Primary Total Elbow Arthroplasty for Distal Humerus Fracture in Elderly

Pierre MANSAT
University of Toulouse College of Medicine, France

SY 09-3 Acute Posterolateral Complex Instability: The Terrible Triad

In-Ho JEON
Asan Medical Center, University of Ulsan, Republic of Korea

SY 09-4 Fractures of the Coronoid

Jesse B. JUPITER
Mass General Hospital, USA

SY 09-5 Complex Bony Injury Involving Proximal Ulna

Ata Can ATALAR
Istanbul University, Istanbul Medical Faculty, Turkey

SY 09-6 Radial Head Fracture: Fix or Replace?

Roger P. van RIET
AZ Monica, Antwerpen Erasme University Hospital, Belgium

Live Surgery

12:10~13:00 / Tamna Hall A

Company	DePuy Synthes MITEK SPORTS MEDICINE COMPANIES OF Johnson & Johnson
Moderator	George S. ATHWAL Western University, Canada
Operator	Felix H. SAVOIE III Tulane University School of Medicine, USA

Luncheon Symposium by DJO Global, Inc. Evolution of a Clinically Proven Reverse Shoulder Arthroplasty Design

12:10~13:00 / Samda Hall

Moderators: Joseph P. IANNOTTI (USA), Kyoung-Jin PARK (Republic of Korea)

LS 3-1 RSP Design Rationale, Evolution and 13 Years of Clinical Experience

Samer S. HASAN
Cincinnati Sports medicine and Orthopaedic Center, USA

LS 3-2 Focus on Glenoid Side with Superior Baseplate Fixation, Patient Specific Lateralization and Glenoid Positioning

Joseph P. IANNOTTI
Cleveland Clinic, USA

LS 3-3 Difference of Bony Anatomy between Westerner and Asian in Shoulder Arthroplasty

Sae Hoon KIM
Seoul National University Hospital, Republic of Korea

PP 11 (Shoulder) Fracture

13:00~13:45 / Tamna Hall B

Chairman: Myung Sun KIM (Republic of Korea)

- PP 11-1 3D Reconstruction Does not Improve Agreement and Results in an Increase of Surgical Indications in Proximal Humeral Fractures**
13:00~13:05 **Carlos TORRENS**, Alejandro LOPEZ-ALCOVER, Marta CUENCA and Fernando SANTANA
Department of Orthopaedic, Hospital del Mar, Barcelona., Spain
- PP 11-2 Is There Still a Place for Conservative Treatment of Humeral Fractures Nowadays ?**
13:05~13:10 **Sophie ABRASSART** and Pierre HOFFMEYER
Department of Orthopaedic Surgery, HUG, Switzerland
- PP 11-3 Predictive Power of Deltoid Tuberosity Index for Early Failure after Osteosynthesis of Proximal Humeral Fracture**
13:10~13:15 **Bernhard JOST**, Gabor PUSKAS, Christian SPROSS, Rebeca ZALEDON and Vilijam ZDRAVKVOIC
Department of Orthopaedic Surgery and Traumatology, Kantonsspital St. Gallen, Switzerland
- PP 11-4 Percutaneous Static IM Nailing of Two-part Displaced Surgical Neck Humerus Fractures**
13:15~13:20 Thomas D'OLLONNE, Patrick GENDRE, Charles BESSIÈRE, Toby BARING and Pascal BOILEAU
Department of Orthopaedic surgery, CHU Nice, France
- PP 11-5 Clinical Results of Hemiarthroplasty for Proximal Humeral Fractures**
13:20~13:25 **Gaurav RASTOGI**, Ashutosh AJARI, Pavan DESAI and Ashish BABHULKAR
Department of Shoulder and Sports Injuries, Deenanath Mangeshkar Hospital, India
- PP 11-6 Arthroscopic Reduction and Fixation with Knotless Double Row Construct for Displaced Greater Tuberosity Fractures**
13:25~13:30 Jean-David WERTHEL, Patrick BOYER, Vanessa COSTIL, Marc SOUBEYRAND, Grégoire CIAIS and Philippe LORIAUT
Department of Orthopedic Surgery, AP-HP, University Paris V, France
- PP 11-7 Risk of Axillary Nerve Injury after Minimally Invasive Plate Fixation of Humerus Fractures: An Electromyography/Nerve Conduction Velocity (EMG/NCV) Study**
13:30~13:35 **Byoung-Hun HWANGBO**, Do-Hyun LEE and **Tae-Kang LIM**
Department of Orthopaedic Surgery, Seoul Eulji Hospital, Republic of Korea
- PP 11-8 Clinical and Radiological Outcome of Arthroscopic Reduction and Fixation for Glenoid Fractures**
13:35~13:40 **Kazuhiko KIKUGAWA** and Nobuyoshi OKUHIRA
Department of Orthopaedic Surgery, Mazda Hospital, Japan
- PP 11-9 Evaluation of Risk Factors Predicting Associated Fracture and Quebec Shoulder Dislocation Rule with an Anterior Shoulder Dislocation in Turkish Population**
13:40~13:45 **Teoman ATICI**¹, Aytun TEMIZ², Aslihan DURAK³ and Kemal DURAK¹
¹Department of Orthopaedic and Traumatology, University of Uludag, Faculty of Medicine, Turkey, ²Department of Orthopaedic and Traumatology, Edremit State Hospital, Turkey, ³Department of Emergency Medicine, Kırkkale State Hospital, Turkey



OP 21 (Shoulder) Rotator Cuff 3

13:30~14:20 / Tamna Hall A

Moderators: Anthony A. ROMEO (USA), Stefano GUMINA (Italy)

- OP 21-1 Anchored versus Anchorless Rotator Cuff Repair: A Biomechanical Analysis**
13:30~13:35 **Edward MCFARLAND**², Stanley GUILLAUME¹, Evan LANGDALE¹, Catherine HANNAN¹, Stephen BELKOFF¹, **Uma SRIKUMARAN**¹ and Kelly KILCOYNE¹
¹Department of Orthopaedic Surgery, Johns Hopkins University, USA, ²Department of Orthopaedic Surgery, William Beaumont Army Medical Center, USA
- OP 21-2 Effects of Glenohumeral Abduction on Rotator Cuff Repair - A Biomechanical Analysis and Comparison of Clinical Outcomes**
13:35~13:40 Elise M CARPENTER, Jacqueline R HAWTHORNE, Patrick H LAM and **George A C MURRELL**
Department of Orthopaedic Surgery, St George Hospital Campus, University of New South Wales, Australia
- OP 21-3 Biomechanical and Initial Clinical Evaluation of a Novel Suture Anchor for Rotator Cuff Repair**
13:40~13:45 **Michael SANDOW**^{1,2}, Claire JONES^{2,3,4}, Andrew MORRIS² and Stuart CALLERY²
¹Department of Orthopaedic Surgery, Wakefield Orthopaedic Clinic, Australia, ²Centre for Orthopaedic & Trauma Research, School of Medicine, University of Adelaide, Adelaide, SA, Australia, ³School of Mechanical Engineering, University of Adelaide, Adelaide, SA, Australia, ⁴Adelaide Centre for Spinal Research, SA Pathology, Adelaide, SA, Australia
- OP 21-4 Shoulder Synovial Fluid Cholesterol Levels and their Effect on the Rotator Cuff**
13:45~13:50 Daniel DAVIS, Alexa NARZIKUL, Daniel SHOLDER, Mark LAZARUS, Surena NAMDARI and **Joseph ABBOUD**
Shoulder/Elbow Division, The Rothman Institute, USA
- 13:50~13:58 **Q & A**
- OP 21-5 The Champagne Toast Position Isolates the Supraspinatus: An Electromyographic Study of Shoulder Physical Examination Tests**
13:58~14:03 Peter N CHALMERS, Gregory L CVETANOVICH, Noam KUPFER, Markus A WIMMER, Nikhil VERMA, Brian J COLE, Anthony A ROMEO and Gregory P NICHOLSON
Department of Orthopaedic Surgery, Rush University Medical Center, USA
- OP 21-6 The Influence of Fenestrated and Non-fenestrated Trocars on Connective Tissue Progenitor Cells in Arthroscopic Bone Marrow Aspiration of the Proximal Humerus**
14:03~14:08 **Andreas VOSS**^{1,2}, Mary Beth MCCARTHY², Hardeep SINGH², Knut BEITZEL¹, Jessica DIVENERE², Andreas B IMHOFF¹, Alexander R. HOBERMAN² and Augustus D. MAZZOCCA²
¹Department of Orthopedic Sports Medicine, Technical University of Munich, Germany, ²Department of Orthopaedic Surgery, University of Connecticut, USA
- OP 21-7 Inter and Intra-Rate Agreement of Sugaya, Goutallier, Warner and Thomazeau Classification Scores Using Postoperative MRI Imaging in Patients with Rotator Cuff Repair at 10 Years Follow Up**
14:08~14:13 Kempf Jean FRANCOIS, Niglis LUCAS, Dosch Jean CLAUDE, Meyer NICOLAS and Philippe COLLIN
Department of Orthopaedic Surgery, University of Strasbourg, France
- 14:13~14:19 **Q & A**

OP 22 (Shoulder) Miscellaneous 3 13:30~14:20 / Halla Hall

Moderators: Chun-Yan JIANG (China), William N. LEVINE (USA)

- OP 22-1 The Specific AC Score (SACS): A New and Validated Method of Assessment of Isolated Acromio-Clavicular Joint Pathology**
13:30~13:35
Shane BARWOOD¹, Jacqui FRENCH¹, Lyn WATSON¹, Simon BALSTER¹ and Tania PIZZARI²
¹Department of Shoulder Surgery, Melbourne Orthopaedic Group, Australia, ²Department of Rehabilitation, Nutrition and Sport, Latrobe University, Australia
- OP 22-2 Vascular Graft Employment in the Surgical Treatment of Acute and Chronic Acromio-Clavicular Dislocation**
13:35~13:40
Matteo VITALI, Alberto PEDRETTI, **Nadim Naim RODRIGUEZ**, Mario VALENTI and Gianfranco FRASCHINI
Department of Orthopedics and Traumatology, IRCCS San Raffaele, Italy
- OP 22-3 The Combined Shoulder Assessment: A Convenient Method to Obtain Outcome Scores**
13:40~13:45
Emma TORRANCE¹, Michael WALTON^{1,2,3}, Puneet MONGA^{1,2,3}, Adam WATTS^{1,2,4} and Lennard FUNK^{1,2,3}
¹HCA Hospitals, United Kingdom, ²Wrightington Hospital, United Kingdom, ³University of Salford, United Kingdom, ⁴University of Manchester, United Kingdom
- OP 22-4 Clinical Outcomes and Tendon Integrity after Cuff Repair: Prospective Comparative Study Open versus Arthroscopic Technique**
13:45~13:50
Nicolas BONNEVIALLE¹, **Xavier BAYLE**¹, Tran PHAM¹, Aurelie GOBET³, Marie FARUCH² and Pierre MANSAT¹
¹Department of Orthopaedic and Traumatology Surgery, Riquet Hospital, University of Toulouse, France, ²Department of radiology, Riquet Hospital, University of Toulouse, France, ³Department of statistics, Riquet Hospital, University of Toulouse, France
- 13:50~13:58 **Q & A**
- OP 22-5 Minimally Invasive Plate Osteosynthesis Using 3D Printing for Shaft Fractures of Clavicles.**
13:58~14:03
Kyoung-Jin PARK, Yong-Min KIM, Byung-Ki CHO, Ho-Seung JUNG, Chae-Ouk LIM and Hyeon-Jun EUN
Department of Orthopaedic Surgery, College of Medicine, Chungbuk National University, Republic of Korea
- OP 22-6 Scapular Protecting Brace for Isolated Serratus Palsy: Outcome at 10 to 28 Years**
14:03~14:08
Martti VASTAMÄKI, Veera PIKKARAINEN, Heidi VASTAMÄKI and Leena RISTOLAINEN
Research Institute Orton, Invalid Foundation, Finland
- OP 22-7 Standard Shoulder Preparation for Arthroscopic Surgery is Associated with Marked Positive Microorganism Contamination. A Study of Port Site Cultures.**
14:08~14:13
Philip KNIGHT¹, Ramez AILABOUNI¹, Amelia HOWARD-HILL², Richard EVERTS¹ and Juliet ELVEY¹
¹Department of Orthopaedic Surgery, Neslon Public Hospital, New Zealand, ²Department of Orthopaedic, Orthopaedic Services Nelson Limited, New Zealand
- 14:13~14:19 **Q & A**



OP 23 (Shoulder) Rotator Cuff 4 14:30~15:30 / Tamna Hall A

Moderators: Gregory P. NICHOLSON (USA), Kwang Jin RHEE (Republic of Korea)

- OP 23-1 Delaminated Rotator Cuff Tears: Morphological Factors Related to Repair Outcomes**
14:30~14:35
Young-Kyu KIM, Chang-Kyu PARK, Jun-Sung WON and Min-Ho PARK
Department of Orthopaedic Surgery, Gachon University, Gill Hospital, Incheon, Republic of Korea

OP 23-2 All Layers versus the Bursal Layer alone in Suture-Bridge Repair of the Delaminated Rotator Cuff Tears
14:35~14:40

Sung-Jae KIM and **Yong-Min CHUN**
Department of Orthopaedic Surgery, Severance Hospital, Yonsei University College of Medicine, Republic of Korea

OP 23-3 Risk Factors of Tear Propagation in Symptomatic Rotator Cuff Tears: A Prospective Study of 150 Shoulders
14:40~14:45

Nobuyuki YAMAMOTO¹, Jun KAWAKAMI¹, Yuki SHIOTA¹, Mitsuyoshi MINETA¹, Hirotaka SANO² and **Eiji ITOI**¹
¹Department of Orthopaedic Surgery, Tohoku university school of medicine, Japan, ²Department of Orthopaedic Surgery, Sendai city hospital, Japan

OP 23-4 Treatment of Symptomatic Non-traumatic Supraspinatus Tear
14:45~14:50

Ville ÄÄRIMAA¹, Juha KUKKONEN², Janne LEHTINEN³ and Antti JOUKAINEN⁴
¹Department of Orthopaedics and traumatology, Turku University Hospital, Finland, ²Department of Surgery, Satakunnan keskussairaala, Finland, ³Department of Surgery, Hatanpään sairaala, Finland, ⁴Department of Surgery, Kuopio University Hospital, Finland

14:50~14:58 **Q & A**

OP 23-5 The Assessment of Outcome of Early versus Late Rotator Cuff Repair for Traumatic Rotator Cuff Tears.
14:58~15:03

Alison Louise ARMSTRONG¹, Vishal PATEL¹, Ryan CHAU¹, Christopher THOMAS¹, Helen FORT², Richard WOOD², Radhakant PANDEY¹ and Amit MODI¹
¹Department of Orthopaedic Surgery, University Hospitals of Leicester NHS Trust, United Kingdom, ²Department of Physiotherapy, University Hospitals of Leicester NHS Trust, United Kingdom

OP 23-6 Arthroscopic Transosseous Rotator Cuff Repair is Cost Effective Compared to Anchored Technique
15:03~15:08

Uma SRIKUMARAN¹, Catherine HANNAN¹, Meera CHAPPIDI¹, Kelly KILCOYNE², Steve PETERSEN³, Edward MCFARLAND¹ and Bashir ZIKRIA¹
¹Department of Orthopaedic Surgery, Johns Hopkins University, USA, ²Department of Orthopaedic Surgery, William Beaumont Army Medical Center, USA, ³Department of Orthopaedic Surgery, MedStar Good Samaritan Hospital, USA

OP 23-7 Mid-Term Clinical Outcomes Following Arthroscopic Transosseous Rotator Cuff Repair
15:08~15:13

Brody FLANAGIN¹, **Eddie LO**², Raffaele GAROFALO³ and Sumant KRISHNAN¹
¹The Shoulder Center, Baylor University Medical Center, USA, ²Department of Orthopaedic Surgery, San Francisco Multispecialty Group, USA, ³Department of Shoulder Service, Miulli Hospital, Italy

OP 23-8 Minimally Important Differences and Change Across Time in Patients Treated Surgically and Non-Surgically for Full-Thickness Rotator Cuff Tears
15:13~15:18

Joel J. GAGNIER, Christopher ROBBINS and **Bruce S. MILLER**
Department of Orthopaedic Surgery, University of Michigan, USA

15:18~15:26 **Q & A**

OP 24 (Elbow) Elbow 3 14:30~15:30 / Halla Hall

Moderators: Pierre MANSAT (France), Steve ROCHE (South Africa)

OP 24-1 Total Elbow Arthroplasty: Outcomes after Triceps-detaching and Triceps-sparing Approaches
14:30~14:35

Robert DACHS¹, Mark FLEMING¹, David CHIVERS¹, Henri CARRARA², Jean-Pierre Du PLESSIS¹, **Basil VRETTOS**¹ and Stephen ROCHE¹
¹Department of Orthopaedic Surgery, University of Cape Town, South Africa, ²Department of Medical Statistics, University of Cape Town, South Africa

- OP 24-2 Double-Plating Fixation in Complex Articular Fractures of the Proximal Ulna**
14:35~14:40 **Giuseppe GIANNICOLA**, Gianluca BULLITTA, David POLIMANTI and Marco SCACCHI
Department of Anatomical, Histological, Forensic Medicine and Orthopedics Sciences, "Sapienza" University of Rome, Italy
- OP 24-3 Linked and Unlinked Total Elbow Replacement in Juvenile Idiopathic Arthritis: A Case Comparison Series with 5 to 17 Years Follow-Up**
14:40~14:45 **Edward F IBRAHIM**, Abbas RASHID and Michael THOMAS
Department of Trauma and Orthopaedics, Heatherwood and Wexham Park Hospitals, United Kingdom
- OP 24-4 The Effect of a Radial Neck Notch on Press-Fit Stem Stability**
14:45~14:50 Dave R. SHUKLA, James S. FITZSIMMONS, Kai-Nan AN and **Shawn W. O' DRISCOLL**
Department of Orthopedics, Biomechanics Laboratory, Mayo Clinic, USA
- 14:50~14:58 **Q & A**
- OP 24-5 Radial Head Arthroplasty in Different Patterns of Instability**
14:58~15:03 **Ana Maria FAR-RIERA**, Carlos PEREZ-URIBARRI and Jose Maria Rapariz GONZALEZ
Department of Orthopaedic Surgery, Hospital Son Llatzer, Spain
- OP 24-6 Longterm Results of Elbow Arthrodesis for Distal Humerus Non-unions**
15:03~15:08 **Ali ERSEN**¹, Fevzi BIRISIK¹, Ilker EREN², Ata Can ATALAR¹ and **Mehmet DEMIRHAN**²
¹*Department of Orthopedics and Traumatology, Istanbul University Istanbul Medical Faculty, Turkey,* ²*Department of Orthopedics and Traumatology, Koc University School of Medicine, Turkey*
- OP 24-7 The Daily Elbow Motion of Healthy Subjects**
15:08~15:13 **John P HAVERSTOCK**, G Daniel G LANGOHR, Graham Jw. KING, George S. ATHWAL and James A. JOHNSON
Department of Orthopaedic Surgery, Roth McFarlane Hand and Upper Limb Centre, Western University, Canada
- OP 24-8 The Annular Ligament - Revisited**
15:13~15:18 **Akin CIL**, James W BARNES, Vjijit L CHOUHAN, Caroline E RINALDI and Nkem C EGEKEZE
Department of Orthopedic Surgery, University of Missouri-Kansas City School of Medicine, Truman Medical Center, USA
- 15:18~15:26 **Q & A**

PP 12 (Shoulder) Miscellaneous 15:30~16:00 / Tamna Hall B
Chairman: Sang Jin CHEON (Republic of Korea)

- PP 12-1 Comparison of Change in Shoulder Range of Motion between Nonsurgical Treatment and Arthroscopic Capsular Release for Shoulder Stiffness**
15:30~15:35 **Akihiko HASEGAWA**¹, Teruhisa MIHATA² and Yasuo ITAMI²
¹*Department of Orthopaedic Surgery, Daiichi Tokiwai Hospital, Japan,* ²*Department of Orthopaedic Surgery, Osaka Medical College, Japan*
- PP 12-2 The Terrible Triad of the Shoulder**
15:35~15:40 **Hiroyasu IKEGAMI**, Takanori SHINTAKU, Shu YOSHIZAWA, Misato SAKAMOTO, Yoshiro MUSHA and Takao KANEKO
Department of Orthopaedic Surgery, Toho University, Japan
- PP 12-3 Medicaid Payer Status is Associated with Increased Complications and Resource Utilization Following Proximal Humerus Fracture when Compared with Privately Insured Patients**
15:40~15:45 **Martin Hs WEISMAN**^{1,2}, Syed H MAHMOOD¹, Matthew LAVELLE¹, Daniel J LOMBARDO^{1,2}, Daniel M BRIGGS^{1,2}, Graysen R PETERSEN-FITTS^{1,2} and Vani J SABESAN^{1,2}
¹*Department of Orthopaedic surgery, Wayne State University School of Medicine, USA,* ²*Department of Orthopaedic Surgery, Beaumont Health, USA*

- PP 12-4 Clinical and MRI Outcomes Following Microfracture of the Glenohumeral Joint during Shoulder Arthroscopy**
15:45~15:50 **Andrew MATTIN**¹, Richard PAGE², William THOMAS³, Duy THAI⁴, Andrew WHAN⁵ and Kevin SHAW⁶
¹*Department of Orthopaedic Surgery, Fremantle Hospital, Australia,* ²*Department of Orthopaedic Surgery, Barwon Orthopaedic Research Unit, Australia,* ³*Department of Orthopaedic Surgery, Exeter Hospital, NHS, United Kingdom,* ⁴*Department of Orthopaedic Surgery, St Vincents Hospital, Australia,* ⁵*Department of Barwon Medical Imaging, Barwon Health, Australia,* ⁶*School of Medicine, Deakin University, Australia*
- PP 12-5 Surgical Treatment of Acromioclavicular Joint Lesions with a Anatomical Technique using a Autograft Reconstruction**
15:50~15:55 **Michael OETTINGER**, Ricardo ALLAN, Antonio GOSAK, Nazareno PIVAS and Jose Maria VARAONA
Department of Orthopedic Surgery, German Hospital of Buenos Aires, Argentina
- PP 12-6 Treatment of Suprascapular Nerve Neuropathy Secondary to Spinoglenoid Cysts with Arthroscopic Decompression and Labral Repair**
15:55~16:00 **Hugo Santiago BARROS**, Maximiliano RANALLETTA, Matias Pereira DUARTE, Laura TRIPODI, Ignacio TANOIRA and Gaston MAIGNON
Shoulder Unit, Hospital Italiano De Buenos Aires, Argentina

Symposium 10 Challenging in Primary Reverse Arthroplasty 16:00~17:00 / Tamna Hall A
Chairman: Gilles WALCH (France)

- SY 10-1 Should We Lateralize the Glenoid ? How Much ?**
Alessandro CASTAGNA
Istituto Clinico Humanitas, Italy
- SY 10-2 Which Humeral Inclination is Better ? 135°, 145° or 155° ?**
Osvandre Luiz LECH
Instituto de Ortopedia e Traumatologia and Sao Vicente de Paulo University Hospital, Brazil
- SY 10-3 Tilt or No Tilt on the Glenoid Side: How to Decide Inclination?**
Gilles WALCH
Hopital privé Jean Mermoz - Centre Orthopédique Santy, France
- SY 10-4 3D Virtual Implantation of the RSA: Which Implant ? Which Position ? Which Orientation ?**
Joseph P. IANNOTTI
Cleveland Clinic, USA
- SY 10-5 Should We Repair the Subscap?**
T. Bradley EDWARDS
Fondren Orthopaedic Group, USA
- SY 10-6 Tips and Tricks for Glenoid Reconstruction in Revision TSA – Outcomes**
Tom R. NORRIS
San Francisco Shoulder, Elbow and Hand Clinic, USA

Symposium 11 How to Deal with Anterior Glenoid Bone Loss 16:00~17:00 / Halla Hall
Chairman: Anthony A. ROMEO (USA)

- SY 11-1 What is Critical Bone Loss for Bone Graft Procedure in Shoulder Instability?**
Sang-Jin SHIN
Ewha Womans University Mokdong Hospital, Republic of Korea
- SY 11-2 Arthroscopic Bony Bankart Repair: As an Effective Management of Anterior Glenoid Bone Loss**
Hiroyuki SUGAYA
Funabashi Orthopaedic Hospital, Japan

- SY 11-3 Arthroscopic Latarjet**
Emilio CALVO
Fundacion Jimenez Diaz, Spain
- SY 11-4 My Solution for Combined Glenoid and Humeral Head Bone Loss**
Mehmet S. DEMIRHAN
KOC University School of Medicine, Turkey
- SY 11-5 Arthroscopic vs. Open Latarjet in the Treatment of Anterior Shoulder Instability with Marked Glenoid Bone Loss: Who's the Champion?**
Chunyan JIANG
Beijing Jishuitan Hospital, China
- SY 11-6 How to Deal with Failed Latarjet Procedure?**
Przemyslaw LUBIATOWSKI
University of Medical Sciences in Poznan, Rehasport Clinic, Poland

Award Session

Best Podium Presentation Award Finalists

17:10~17:40 / Tamna Hall A

Moderators: Kyoung-Hwan KOH (Republic of Korea), Jae Chul YOO (Republic of Korea)



- OP 6-2 Neural Correlates of Clinical Scores in Patients with Anterior Shoulder Apprehension**
Alexandre LÄDERMANN¹, **Gregory CUNNINGHAM**² and Pierre HOFFMEYER²
¹Department of Orthopaedic Surgery and Trauma, La Tour Hospital, Switzerland, ²Division of Orthopedic and Trauma Surgery, Department of Surgery, University Hospitals of Geneva, Switzerland
- OP 22-7 Standard Shoulder Preparation for Arthroscopic Surgery is Associated with Marked Positive Microorganism Contamination. A Study of Port Site Cultures.**
Philip KNIGHT¹, Ramez AILABOUNI¹, Amelia HOWARD-HILL², Richard EVERTS¹ and Juliet ELVEY¹
¹Department of Orthopaedic Surgery, Neslon Public Hospital, New Zealand, ²Department of Orthopaedic, Orthopaedic Services Nelson Limited, New Zealand
- OP 11-2 Two Years Results of a Prospective Study on the Natural History of Non-operatively Treated Type III Acromioclavicular Joint Dislocations.**
Alex MALONE, Andrew STRANG, Andrew MATTHEWS and Danielle STACHIW
Department of Orthopaedic Surgery and Musculoskeletal Medicine, Christchurch School of Medicine, University of Otago, New Zealand
- OP 12-3 Does Fatigue Alter Pitching Mechanics?**
Brandon J ERICKSON¹, Terrance SGORI², Peter CHALMERS¹, Patrick VIGNONA³, Matthew LESNIAK³, Charles A BUSH-JOSEPH¹, Nikhil N VERMA¹ and **Anthony A ROMEO**¹
¹Department of Orthopaedic Surgery, Rush University, USA, ²Department of orthopaedic Surgery, Hospital for Special Surgery, USA, ³Department of Rehabilitation, Accelerated Rehabilitation, USA
- OP 4-7 A Follow-up Over 3 Years of Actual Playing after Combined Arthroscopic Bankart and Open Bristow Procedure for Traumatic Anterior Dislocation of the Shoulder in Elite Rugby Players**
Atsushi TASAKI¹, Wataru MORITA², Taiki NOZAKI³, Masayoshi SAITO¹, Akira YAMAKAWA¹ and Eishi KURODA¹
¹Department of Orthopaedic Surgery, St. Luke's International Hospital, Tokyo, Japan, ²Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford, United Kingdom, ³Department of Radiology, St. Luke's International Hospital, Tokyo, Japan