



Thursday, 18 September

- 14:30 **Young Investigators' Forum**
Elisse Room 5
Chaired by: Prof. Nico Verdonschot and Dr. Yuri Piccolo
- 16:30 **EORS-ISTA symposium: The Role of Artificial Intelligence in Arthroplasty Research**
Elisse Room 5
Chaired by: Prof. Nico Verdonschot and Dr. Gabriela Graziani
- 16:30 **AI in biomechanics/implants testing, showcasing the expertise of the AO on this**
» [Prof. Boyko Gueorguiev](#)
- 16:38 **AI, machine learning & data science as basis for future developments in medical device related clinical applications - an industrial point of view**
» [Prof. Thomas Grupp](#)
- 16:46 **Smart sensing implants as a future source of quality data and new AI-driven analytics**
» [Dr. Bernd Grimm](#)
- 16:54 **Utilization of AI in total joint arthroplasty**
» [Dr. Matthias Verstraete](#)
- 17:02 **Artificial Intelligence in Spine Surgery**
» [Prof. Gianluca Vadala](#)
- 18:30 **ISTA Rome Welcome Reception**
Le Belle Arti
Chaired by: Prof. Catherine Van Der Straeten and Prof. Stefano Gumina and Dr. Alessandro Calistri

Friday, 19 September

- 07:00 **Poster Day 1 & Bio Lab**
Exhibitors' Area
Chaired by: Prof. Catherine Van Der Straeten and Dr. Alessandro Calistri
- CORROSION RESISTANCE OF EXISTING ENCAPSULATING SOLUTIONS**
» [Mr. Massimiliano Tomaselli](#), Mr. Stefano Rappo, Mr. Mukesh Kumar
- IN VITRO EVALUATION OF AN INFECTION PREVENTION COATING ON A REVISION HIP STEM IN REGARD TO THE IMPLANTATION PROCEDURE IN SITU**
» [Dr. Christoph Schilling](#), Prof. Daniel Kendoff, Dr. Dirk Herold, Mr. Lutz Dreyer, Mrs. Janine Fechter, Mrs. Philine Baur, Prof. Thomas M. Grupp
- EXPLORING A QUANTUMVOLUTIONAL NEURAL NETWORK FOR BIOMEDICAL IMAGE CLASSIFICATION IN ORTHOPEDICS**
» [Mr. Cristiano Pizzamiglio](#), Mr. Giulio Crognaletti, Prof. Angelo Bassi, Mr. Michele Pressacco
- VALIDATING AI-DRIVEN CHATBOTS IN POST-OPERATIVE CARE: A RIGOROUS FRAMEWORK FOR SAFE, EMPATHETIC, AND CLINICALLY RELEVANT PATIENT SUPPORT**
» Dr. Julien Lebleu, Mr. Gabriel Van Fraeyenhoven, Mr. Florian Gysen, Mr. Mathieu Joncheere, Mr. Charles-Eric Winandy, [Mr. Ward Servaes](#), Mr. Andries Pauwels
- SILK FIBROIN CLOSURE ELIMINATES THE INCIDENCE OF ALLERGIC CONTACT DERMATITIS COMPARED TO CYANOACRYLATE MESH IN TOTAL JOINT ARTHROPLASTY**
» [Dr. Matthew Siljander](#), Dr. Justin Moo Young, Mr. Viraj Deshpande, Mrs. Susanne Porter, Mr. Edward Quilligan, Dr. Travis Scudday, Dr. Steven Barnett, Dr. Robert Gorab
- Foot Drop Inventory Management (FDIM)**
» [Ms. Marwa Fawal](#), Prof. Bassel El-Osta



Continued from Friday, 19 September

NEUTROPHIL-LYMPHOCYTE RATIO AS PREDICTOR FOR ACUTE INFECTION AFTER PRIMARY TOTAL JOINT ARTHROPLASTY IN RHEUMATOID ARTHRITIS PATIENTS

» [Dr. Yahao Lai](#)

Integrated Multi-Omic Analysis Identifies MMP-16 as a Promising Biomarker and Therapeutic Target for Sarcopenia

» [Dr. Zhi Chen](#)

Adhesive Force To Metals By Different Bone Void Fillers (BVFS) and PMMA

» [Dr. Gerhard Maale](#)

Advancing metal-based coatings to prevent the onset of infection

» Dr. Daniele Ghezzi, Dr. Julietta Rau, Prof. Enrico Sassoni, Prof. Silvia Fare', Prof. Martina Cappelletti, [Dr. Gabriela Graziani](#)

Preoperative Bisphosphonates in Total Hip Arthroplasty: Safe Regardless of Treatment Duration

» Dr. SEOKHA HONG, [Dr. Seung Beom Han](#)

GLP-1 RECEPTOR AGONIST USE IS ASSOCIATED WITH SUPERIOR OUTCOMES FOLLOWING UNICOMPARTMENTAL KNEE ARTHROPLASTY IN PATIENTS WITH DIABETES

» [Mr. John Slevin](#), Mr. Anthony Seddio, Mr. Arjun Aron, Dr. Rajiv Vasudevan, Dr. Jonathan Grauer, Dr. Lee Rubin

WOULD THE FRICTION COEFFICIENT BETWEEN UHMWPE AND COBALT CHROME DEPEND ON CONTACT AREA AND SURFACE FINISH OF THE POLY, AND WHICH WAY?

» [Mr. Joel Weisenburger](#), Mr. Alex Eischeid, Ms. Rachel Ma, Dr. Kevin Garvin, Dr. Hani Haider

TRIBOLOGICAL BEHAVIOR OF HEMIARTHROPLASTY BEARING MATERIALS: INFLUENCE OF LUBRICANT TYPE, CONTACT STRESS, VELOCITY, AND TIME

» Ms. Victoria Marino, Ms. Francesca de Vecchi, Mr. Landon Begin, Dr. Douglas Moore, Prof. Joseph Crisco, [Prof. Markus Wimmer](#)

Advanced Non-Contact Analysis for Optimizing Humerus Fracture Fixation Techniques

» Prof. Biagio Carboni, Prof. Stefano Gumina, Mr. Sawan Kumar Guruva, [Prof. Walter Lacarbonara](#), Dr. Vittorio Candela, Prof. Jacopo Tirillo, Prof. Teodoro Valente

EFFECT OF CALCIUM CARBONATE COATING ON THE WEAR PROPERTIES OF 3D-PRINTED PEEK FOR TOTAL JOINT REPLACEMENTS

» [Dr. Abdellatif Abdelgaied](#), Ms. Jane Iziumova, Ms. Mariam Mammen, Dr. Ahmad Serjouei, Dr. Dmitry Volodkin, Dr. Anna Vikulina

Smoking as a Modifiable Risk Factor of Prosthetic Joint Infection in Total Joint Arthroplasty: A Single Center Retrospective Review

» Mr. Adrian Lin, [Mr. Kole Joachim](#), Dr. Christopher Hamad, Dr. Brandon Gettleman, Mr. Othneil Sparks, Ms. Sumin Jeong, Mr. Ezekiel Dingle, Ms. Amanda Perrotta, Dr. Alexandra Stavrakis, Dr. Alexander Christ

Comparison of Patient Demographics, Surgical Site Infections, and Surgeon Specialty Preferences Following Open versus Arthroscopic Repair of the Triangular Fibrocartilage Complex

» [Dr. Adam Gordon](#), Mr. Patrick Nian, Mr. Joydeep Baidya, Dr. Jack Choueka

LONG-TERM SURVIVAL OF RADIAL HEAD ANATOMIC IMPLANT FOR MASON TYPE III-IV FRACTURES: A 15-YEAR FOLLOW-UP

» [Dr. Laura Benedetti](#), Prof. Luigi Tarallo

CONTACT VARIATION OF RADIAL HEAD IMPLANT STEMS DUE TO INTRAMEDULLARY CANAL VARIANCE: A FINITE ELEMENT ANALYSIS STUDY

» Mr. Ryan Hunt, Ms. Raveen Sidhu, Mr. Johannes Sieberer, Dr. Gregory Roytman, Dr. Steven Tommasini, Dr. Daniel Wiznia, [Dr. Lisa Lattanza](#)

DISTAL RADIO-ULNAR JOINT ARTHROPLASTY (U-HEAD): A LONG TERM REVIEW

» [Dr. Alberto Visigalli](#), Dr. Andrea Gambineri, Dr. Carlo Felice De Biase, Dr. Giovanni Ziveri, Dr. Matteo Giovanelli, Prof. Maurizio Corradi



Continued from Friday, 19 September

Design, development and prototyping of an intuitively controlled biomimetic prosthetic arm equipped with haptic feedback and a dedicated mobile software for remote rehabilitation of people with upper limb difference.

» [Prof. Massimiliano Mangone](#), Prof. Mario Vetrano, Dr. Francesco Agostini, Dr. Mattia Giuseppe Viva, Prof. Marco Paoloni

Comparison of Patient Demographics and Implant Complications in Patients with Multiple Sclerosis Undergoing Total Hip Arthroplasty Versus Hemiarthroplasty for Femoral Neck Fractures

» [Dr. Adam Gordon](#), Mr. faisal elahi, Mr. Gabriel Lama, Dr. Matthew Magruder, Dr. Kevin Kang

ASSOCIATION BETWEEN DISEASE ACTIVITY OF RHEUMATOID ARTHRITIS AND RISK OF COMPLICATIONS FOLLOWING TOTAL HIP ARTHROPLASTY: A RETROSPECTIVE COHORT STUDY

» [Dr. Zeyu Luo](#), Dr. Yahao Lai

Computed Tomography Evaluation Of Alumina Ceramic-On-Ceramic Total Hip Arthroplasty With More Than 20 Years Of Follow-Up: Is A Follow-Up Computed Tomography Scan Necessary?

» Dr. Hong Seok Kim, Dr. Jeong Joon Yoo, [Dr. Sang Yoon Kang](#)

BODY COMPOSITION ANALYSIS USING BIOELECTRICAL IMPEDANCE IN HIP ARTHROPLASTY CANDIDATES: A TOOL FOR PATIENT OPTIMISATION AND EDUCATION

» [Mr. Jeremy Latham](#)

Two-year Outcomes of a Next Generation, Modular Acetabular System in Total Hip Arthroplasty

» Mr. Garrett Ruff, Dr. Anzar Sarfraz, Dr. Farouk Khury, [Ms. Catherine Di Gangi](#), Dr. Diren Arsoy, Dr. Claudette Lajam, Dr. Vinay Aggarwal

Safety and Outcomes of Bikini-Incision DAA for Hip Arthroplasty with Large Acetabular Cups (≥ 56 mm): A Single-Surgeon Series of 215 Cases

» [Dr. ikram nizam](#), Dr. Fadhil Salleh

Can Vessel-Sparing Bikini Anterior Approach Be an Option in Reducing Heterotopic Ossification After Hip Arthroplasty? A Single-Surgeon Experience.

» [Dr. ikram nizam](#), Dr. Fadhil Salleh

CORRELATION BETWEEN VENTING THE FEMORAL CANAL IN HIP ARTHROPLASTY AND 10 YEAR MORTALITY.

» [Prof. Derek McMinn](#), Dr. Jonathan Freeman, Ms. Hena Ziaee, Mr. Andy McMinn, Mr. Roger Ashton, Mr. Joseph Daniel

VISUALIZATION OF ACETABULAR COVERAGE OF DYSPLASTIC HIPs UNDERGOING TOTAL HIP ARTHROPLASTY USING THE RADAR CHART METHOD

» [Dr. Sakura Kuniyoshi](#), Dr. Satoshi Nakasone, Dr. Mika Takaesu, Dr. Fumiyuki Washizaki, Dr. Kenta Otsuki, Prof. Kotaro Nishida

CLINICAL OUTCOMES OF UNCEMENTED METAL-ON-METAL HIP RESURFACING: A SINGLE-SURGEON SERIES OF 5375 CASES

» Ms. Dani Gaillard-Campbell, [Dr. Thomas Gross](#)

UNCEMENTED HIP RESURFACING ARTHROPLASTY IN PATIENTS OLDER THAN 65: A COMPARISON OF DURABILITY TO YOUNGER PATIENTS

» Ms. Dani Gaillard-Campbell, [Dr. Thomas Gross](#)

Finite Element Analysis of a 3D-Printed Acetabular Prosthesis for an Acetabular Defect According to the Paprosky Classification

» [Dr. Mario Ceddia](#), Prof. Bartolomeo Trentadue, Dr. GIUSEPPE SOLARINO

Hip Stem Implants Made of Different Titanium Alloys and Composite Materials

» [Dr. Mario Ceddia](#), Prof. Bartolomeo Trentadue, Dr. GIUSEPPE SOLARINO

LEARNING CURVE OF A MINIATURIZED HAND-HELD NAVIGATION SYSTEM IN IMAGELESS THA

» Ms. Breanna Lyn, [Mr. Casimir Schwank](#), Dr. Hani Mayassi



Continued from **Friday, 19 September**

Endoscopic treatment of greater trochanteric pain syndrome following primary replacement surgery: A preliminary risk factor analysis of a propensity-matched cohort

» [Dr. Megan Flynn](#), Mr. Krishi Rana, Ms. Elizabeth Walsh, Dr. Nils Becker, Dr. Benjamin Kuhns, Dr. Benjamin Domb

Defining Patient Acceptable Symptom State for HHS, mHHS, HOOS-JR and FJS in Primary Total Hip Arthroplasty: A 10-Year Follow-Up Study

» [Dr. Roger Quesada-Jimenez](#), Ms. Elizabeth Walsh, Mr. Andrew Schab, Dr. Ady Kahana-Rojkind, Dr. Benjamin Domb

Offset Restoration Following Robotic Assisted Total Hip Arthroplasty Impacts Outcomes: A Sex-Specific Analysis

» [Dr. Roger Quesada-Jimenez](#), Mr. Matthew Strok, Dr. Nils Becker, Dr. Benjamin Kuhns, Dr. Benjamin Domb

Long-term functional outcomes following robotic-assisted total hip arthroplasty: A case series

» [Dr. Ady Kahana-Rojkind](#), Ms. Drashti Sikligar, Dr. Roger Quesada-Jimenez, Ms. Elizabeth Walsh, Dr. Mark Schinsky, Dr. Benjamin Domb

Incidence and Risk Factors of Perioperative Greater Trochanteric Fracture in Total Hip Arthroplasty via the Minimally Invasive Anterolateral Approach in the Lateral Decubitus Position

» [Dr. Yudai Yano](#), Dr. Yoshinobu Uchihara, Dr. Masakazu Okamoto, Dr. Kenichiro Saito

LONG-TERM RESULTS OF A MODERN MOM HIP RESURFACING

» [Ms. Hena Ziaee](#), Prof. Derek McMinn, Mr. Andy McMinn, Mr. Roger Ashton, Mr. Joseph Daniel

Cementless stems for femoral neck fractures: high risk for periprosthetic fracture?

» [Mr. Georg-Antonio Bernecker](#), Prof. Michael Hirschmann, Prof. Andrej Nowakowski

CAN THE ANTERIOR CORTICAL WALL ANGLE OF THE STEM SERVE AS A STABLE BONY LANDMARK IN THA? — THE INVESTIGATION ON IMPACT OF OSTEOTOMY ANGLE VARIATIONS —

» [Dr. Kenta Otsuki](#), Dr. Satoshi Nakasone, Dr. Masato Ishihara, Dr. Mika Takaesu, Dr. Fumiyuki Washizaki, Dr. Sakura Kuniyoshi, Dr. Shoichiro Yamashiro, Prof. Kotaro Nishida

DAIR, AN UNDERESTIMATED CONCEPT FOR PERIPROSTHETIC JOINT INFECTION TREATMENT

» [Prof. Rene MIHALIČ](#), Dr. Samo Roškar, Prof. Rihard Trebse

SHORT-TERM FOLLOW-UP AND SURVIVORSHIP OF A NEW COLLARED TRIPLE-TAPER STEM

» [Dr. Camilo Restrepo](#), Ms. Neeku Salehi, Mr. Alex Stratton, Mr. Matthew B. Sherman, Dr. Eric B. Smith, Dr. Ram Yakkanti, Dr. Alvin C. Ong, Dr. William J. Hozack

Can Patients with Atrial Fibrillation be Safely Discharged Same-Day Following Total Joint Arthroplasty?

» [Dr. Matthew Siliander](#), Dr. Justin Moo Young, Mr. Evan Simpson, Ms. Napat Intarachumnum, Mr. Edward Quilligan, Dr. Nader Nassif

OUTCOMES OF CEMENTED AND CEMENTLESS TOTAL HIP ARTHROPLASTY FOLLOWING FEMORAL NECK FRACTURES IN THE ELDERLY: A PROPENSITY SCORE-MATCHED STUDY

» Prof. Young-Ho Roh, [Prof. Yong-Geun Park](#)

Investigation of hip rotational change before and after total hip arthroplasty evaluating foot rotation

» [Prof. Takashi Sakai](#), Dr. Kazuhiro Yamazaki, Dr. Takashi Imagama, Dr. Yuta Matsuki, Dr. Kei Sasaki, Dr. Keiichi Kato, Dr. Masahiro Numa

RISK OF IMPINGEMENT IN TOTAL HIP ARTHROPLASTY: A SUBJECT SPECIFIC ACTIVITY STUDY OF THE EFFECT OF DIFFERENT AND IDEAL CUP POSITION

» Dr. Simon Williams, Prof. Graham Isaac, Dr. Alison Jones, Prof. Ruth Wilcox, Prof. Tim Board, [Prof. Sophie Williams](#)



Continued from Friday, 19 September

Avoidance of Dislocation Using a Cementless Non-Modular Dual Mobility Acetabular Cup Inserted via Posterior Approach without Technology

» Mr. Vishal Sunderam, Mr. Braden Saba, Ms. Saloni Haruray, Ms. Catherine Di Gangi, Dr. Matthew Hepinstall, Dr. Ran Schwarzkopf, Dr. Morteza Meftah, Dr. William Macaulay

VOLUMETRIC WEAR MEASUREMENT ON TOTAL HIP ARTHROPLASTY SOCKETS WITH AN OPTICAL COORDINATE MEASURING MACHINE IS HIGHLY RELIABLE

» Mr. Valerio Porrati, Dr. Peter Wahl, Dr. Michel Schlaeppli, Dr. Roman Heuberger, Dr. Deborah J. Hall, Dr. Robin Pourzal

ACCURACY OF THE NAVBIT SPRINT: AN INERTIAL PORTABLE NAVIGATION SYSTEM FOR CUP POSITIONING IN THA

» Ms. Sarah Kenny, Prof. Bill Walter, Dr. Matt Lyons, Dr. Koki Abe

WHO NEEDS 3D PLANNING FOR THA?

» Prof. Bill Walter, Ms. Sarah Kenny, Dr. Koki Abe, Dr. Matt Lyons

EDUCATIONAL EFFECTS OF USING INERTIAL PORTABLE NAVIGATION IN TOTAL HIP ARTHROPLASTY

» Dr. Koki Abe, Ms. Sarah Kenny, Prof. Bill Walter, Dr. Karan Sandhu

Trends in Dual Mobility Cup Use and Outcomes in Primary and Revision Hip Arthroplasty: A Nationwide database study

» Dr. SEOKHA HONG, Dr. Seung Beom Han

VISUAL C-ARM ALIGNMENT IN THA FREQUENTLY FAILS TO MATCH PREOPERATIVE RADIOGRAPHS

» Dr. Jim Pierrepont, Mr. Christopher Plaskos, Dr. Junfen Shi, Dr. Moritz Ehke, Prof. Arjun Saxena, Prof. Nicholas Brown

A Novel Reconstruction of the Paprosky type IV Femoral defect Using isthmusoplasty and tapered modular fluted titanium stem: a biomechanical study

» Dr. Yong Huang, Prof. Yixin Zhou, Dr. Guoqing Li, Dr. Kaiqi Cao, Dr. Wang Deng

IMPACT OF ACETABULAR CUP SIZE ON CENTER OF ROTATION RESTORATION: THE PREDICTIVE ROLE OF RADIOGRAPHIC FEMORAL HEAD DIAMETER IN TOTAL HIP ARTHROPLASTY – A SINGLE-CENTER STUDY

» Dr. Alessandro Del Monaco, Prof. Biagio Zampogna, Dr. Francesco Rosario Parisi, Dr. Augusto Ferrini, Dr. Andrea Zampoli, Dr. Giovanni Zagaria, Dr. Riccardo Vitale, Dr. Ferruccio Vorini, Dr. Michele Paciotti, Prof. Rocco Papalia

A LEXICON OF IN VITRO HIP WEAR TESTING: A 20 YEAR JOURNEY THROUGH 36 DIFFERENT HIP MATERIALS, SIZES, AND DESIGNS, UNDER IDENTICAL TESTING CONDITIONS

» Dr. Hani Haider, Mr. Joel Weisenburger, Dr. Kevin Garvin

THE IMPORTANCE OF MEASURING METAL IONS BEFORE A METAL ON METAL TOTAL HIP ARTHROPLASTY

» Dr. LAFAYETTE DE AZEVEDO LAGE, Dr. Gustavo Lage, Dr. Maria Vianna

Guides and 3D printed augments implants for complex acetabular reconstructions in primary THA

» Prof. Kris govaers

Long-term clinical results of the cemented THA stem with double-tapered design and smooth surfaced titanium alloy for more than 15 years

» Dr. Jiro Tamura, Dr. Masato Oota, Dr. Toshiyuki Kitaori, Dr. Takahiko Saji

OXIDIZED ZIRCONIUM-NIOBIUM (OXINIUM) BALL HEAD: A CASE REPORT OF LOCAL AND SYSTEMIC REACTIONS TO CATASTROPHIC FAILURE

» Dr. MICHELA SARACCO, Dr. DONATO STANISCIA, Dr. ALICE BECELLI, Dr. GAETANO DRAGANI, Dr. CORRADO PICONI, Prof. GIANDOMENICO LOGROSCINO



Continued from Friday, 19 September

Comparison of clinical results after total hip arthroplasty using CT-based navigation system between osteonecrosis of the femoral head and osteoarthritis: a propensity score matched analysis

» [Dr. Kazuma Takashima](#), Dr. KEISUKE UEMURA, Dr. Tetsuro Tani, Dr. Hidetoshi Hamada, Prof. Nobuhiko Sugano

Robotic-Assisted Versus Manual Total Hip Arthroplasty Performed for Hip Dysplasia

» Dr. Colin Neitzke, Dr. Jeffrey O'Donnell, Dr. Daniel Buchalter, Dr. Sonia Chandi, Dr. Geoffrey Westrich, [Dr. Elizabeth Gausden](#)

Chronic Expanding Hematoma After Revision total Hip Arthroplasty: A Case report

» [Dr. satoe tanabe](#)

Early Outcomes of Robotic Assistance for Total Hip Arthroplasty Performed After Operative Acetabular Fracture Fixation

» Dr. Colin Neitzke, Dr. Jeffrey O'Donnell, Dr. Pravjit Bhatti, Dr. Sonia Chandi, Ms. Natalie Pahapill, Dr. Brandon Bukowski, Dr. Alexander McLawhorn, Dr. Geoffrey Westrich, [Dr. Elizabeth Gausden](#)

Mid-term Outcomes of Combined Anterior Version Control Using Dual Taper Modular Neck Anatomic Short Cementless Stem and CT Navigation in Total Hip Arthroplasty

» [Prof. Nobuhiko Sugano](#), Dr. Wataru Ando, Dr. Kazuma Takashima, Dr. Hirokazu Mae, Dr. KEISUKE UEMURA, Dr. Hidetoshi Hamada

ACUTE TOTAL HIP ARTHROPLASTY FOR ACETABULAR FRACTURE: CUP-CAGE VS. CUP-ONLY

» [Dr. Brian Darrieth](#), Dr. David Kerr, Dr. Clarency Toney, Dr. Paul Perdue, Dr. David Zuelzer, Dr. Jibanananda Satpathy

CERAMIC-ON-METAL BEARING IN HIP REPLACEMENT: LONG TERM CLINICAL AND RADIOGRAPHIC OUTCOMES USING TWO DIFFERENT SHORT STEMS

» [Dr. MICHELA SARACCO](#), Dr. Lorenzo Vitale, Dr. VALERIA MARINUCCI, Dr. LORENZO DE MEIS, Prof. FRANCESCO FALEZ, Prof. GIANDOMENICO LOGROSCINO

Comparison of Two Neck-Preserving Short-Stem Designs in Total Hip Arthroplasty: A Retrospective Analysis with Mid-Term Follow-Up

» Dr. Paolo Petiti, [Dr. Aaron Guzman](#), Dr. Daniele De Meo, Dr. Michele Carnovale, Dr. Gianluca Cera, Dr. Vittorio Candela, Prof. Stefano Gumina, Prof. Ciro Villani

PRESERVING THE TAPER: A NEW METHODOLOGY FOR REALISTIC EVALUATION OF HIP IMPLANT INTERFACES

» Ms. Natalie Heinz, Mr. Milton Schneider, [Dr. Patricia Ortega Cubillos](#), Prof. Fabio Antonio Xavier, Prof. Eduardo A Fancello, Prof. Carlos Rodrigo de Mello Roesler, Dr. Joao Matheus Guimaraes

Debris Morphogenesis in CoCrMo Alloys: Linking Real Contact Area to Wear Mechanisms and Debris Formation

» [Ms. Edona Hyla](#), Dr. Andrew Beadling, Prof. Richard M. Hall, Dr. Gregory de Boer, Prof. Michael Bryant

Contact Impedance of Fretting Corrosion Interfaces of Orthopedic Alloys

» [Dr. Jeremy Gilbert](#), Mr. Dinghe Liu

Development and Validation of Floor Vibration Sensors for Monitoring Arthroplasty Patient Gait

» Mr. Terry Hines, Mr. Andrew Gothard, Ms. Wil Reehl, Ms. Grace Laurence, Ms. Elizabeth Hoy, Dr. Ryan Chapman, Dr. Carolyn Duncan, [Dr. Steven Anton](#)

Fast and reliable infection diagnosis during orthopaedic surgery using Bluetooth-assisted miniaturized-electrochemical sensor

» [Dr. Raffaele Vitiello](#), Dr. Luca Fiore, Prof. Giulio Maccauro, Prof. Fabiana Aruini



Continued from Friday, 19 September

Outcomes and Survivorship of a Next-Generation Constrained Acetabular Liner in Revision Total Hip Arthroplasty

» Dr. Farouk Khury, Mr. Blaine Luebbering, Mr. Garrett Ruff, Dr. Anzar Sarfraz, Ms. Catherine Di Gangi, Ms. Saloni Haruray, Dr. Ran Schwarzkopf, [Dr. Morteza Meftah](#), Dr. Vinay Aggarwal

Risk Factors for The Development of Thromboembolic Complications Within 1 Year Following Primary Cervical Disc Arthroplasty

» [Dr. Adam Gordon](#), Mr. faisal elahi

RETRIEVAL ANALYSIS OF METAL-ON-METAL LATERAL LUMBAR TOTAL DISC REPLACEMENTS

» Mr. Nicholas Lamb, [Dr. Sophia Sangiorgio](#), Dr. Edward Ebramzadeh, Dr. Sang-Hyun Park

COMPARATIVE ASSESSMENT OF RELAXED- AND FLEXED-SEATED RADIOGRAPHS IN EVALUATING SPINOPELVIC PARAMETERS IN TOTAL HIP ARTHROPLASTY

» [Dr. Andreas Fontalis](#), Dr. fabio Mancino, Dr. Thomas Vanspauwen, Mr. Warran Wignadasan, Dr. Pierre Putzeys, Prof. FARES HADDAD

A FINITE ELEMENT STUDY OF FEMOROACETABULAR CONTACT STRESS IN POSTERIOR WALL ACETABULUM FRACTURES

» [Dr. Gregory Roytman](#), Dr. Sarah Rizzo, Dr. Steven Tommasini, Dr. Daniel Wiznia, Dr. Brianna Fram, Dr. Brad Yoo

Surgical Treatment for cervical Spondylotic Myelopathy In Patients Aged Over 90

» [Ms. Natsuki Masu](#)

ROLE OF CT-GUIDED INTRAOPERATIVE NAVIGATION IN PELVIC TUMOR RESECTION SURGERY

» [Prof. Carmine Zoccali](#), Dr. Giuseppe Francesco Papalia, Dr. Rocco Caminiti, Dr. Enrico Palombo, Dr. Jacopo Baldi, Dr. Vittorio Candela, Prof. Stefano Gumina

FLUID ABSORPTION AND STABILISATION OF PEEK-OPTIMA™

» [Mr. Tshepang Dipholo](#), Dr. Raelene Cowie, Dr. Adam Briscoe, Prof. Louise Jennings

A SURROGATE MODELING APPROACH ENABLES REAL-TIME, LOW-ERROR RESULTS FOR IN SILICO CLINICAL TRIALS

» Prof. Saulo Martelli, Mrs. Christine Mueri, Mr. Lukas Connolly, Dr. Hadi Seyed Hosseini, [Dr. Philippe Favre](#)

Validation Of An AI-Based Platform For 3D Reconstruction Of The Knee From Standard Biplanar X-Ray Images: Study Protocol

» [Dr. George Chimento](#), Dr. Miguel Jaramillo, Mr. Moshe Safran

Pre-Hospital Delays Represent Unnoticed Intervals That Affect Mortality Rates in Geriatric Hip Fractures: A Prospective Cohort Study

» [Prof. Rajendra Kumar Kanojia](#)

Changes in spinopelvic alignment due to the lumbar fusion and posture -The risk of dislocation after total hip arthroplasty-

» [Dr. Takashi Imagama](#), Dr. Yuta Matsuki, Dr. Kei Sasaki, Dr. Masahiro Numa, Dr. Keiichi Kato, Prof. Takashi Sakai

INDUSTRY INFLUENCE AND IMPLANT TRANSPARENCY IN SHOULDER ARTHROPLASTY: A REVIEW OF THE 100 MOST CITED ARTICLES

» Mr. Matthew McKinley, Mr. Ben Lack, Mr. Justin Childers, Dr. Jehad AlSamhori, Mr. Cooper Williams, Ms. Aghdas Movassaghi, [Dr. Jocelyn Lubert](#), Dr. Vani Sabesan

THE UNDERREPORTING OF SEX SPECIFIC ANALYSIS IN REVERSE TOTAL SHOULDER ARTHROPLASTY

» Ms. Aghdas Movassaghi, Ms. Lana Smith, Ms. Elizabeth Chan, Ms. Elisheva Knopf, Ms. Xiomara Ortiz, [Ms. Roya Osswald](#), Dr. Jocelyn Lubert, Dr. Vani Sabesan



Continued from Friday, 19 September

FACTORS ASSOCIATED WITH HIGHER INPATIENT OPIOID CONSUMPTION AND OUTPATIENT PHYSIOTHERAPY SESSIONS AFTER UNICOMPARTMENTAL KNEE ARTHROPLASTY: A RETROSPECTIVE TERTIARY CENTRE ANALYSIS

» [Mr. Hugo Humphries](#), Dr. Andreas Fontalis, Ms. Moe Takenoshita, Dr. Zaid Yasen, Mr. Warran Wignadasan, Prof. FARES HADDAD

MULTIFUNCTIONAL TEXTILES FOR ADVANCED PROSTHETIC LEGS

» Mr. Luis Alexandrino, Mr. Alessandro Porrari, [Prof. Giulia Lanzara](#)

07:30 Biocomposites Breakfast Symposium

Room 1 & 2

Chaired by: Dr. GIUSEPPE SOLARINO

What's new on the use of local delivery of antibiotics? Highlights from the 2025 International Consensus Meeting on Periprosthetic Joint Infections

» [Prof. Pier Francesco Indelli](#)

From DAIR to Two Stage Exchange: clinical application of local antibiotics

» [Dr. Daniele De Meo](#)

08:00 Breakfast

Exhibitors' Area

08:00 Short Talks: HIP Materials/tribology/wear

Room 3

Chaired by: Prof. Bill Walter

08:00 What's that noise? - Squeaking in ceramic hips and its influencing factors

» [Mr. Maurice Weiss](#), Dr. Stefan Schroeder, Ms. Luisa Gaedeke, Dr. Mustafa Hariri, Dr. Therese Bormann, Prof. J. Philippe Kretzer, Mr. Maximilian Uhler

08:03 Stress Shielding in the SL-PLUS Stem: Does It Influence Five-Year Outcomes and Fixation Style in Total Hip Arthroplasty?

» [Prof. Nobuyuki Watanabe](#), Dr. Shinya Kataoka, Dr. Hiroaki Sakai, Dr. Gen Kuroyanagi

08:06 INFLUENCE OF THE COLLAR ON SURVIVORSHIP AND REVISION INDICATIONS IN FEMORAL STEMS: A RETRIEVAL STUDY FROM A BRAZILIAN ORTHOPEDIC REFERENCE HOSPITAL

» Mr. Adrielson Echamendi da Silva, [Dr. Patricia Ortega Cubillos](#), Ms. Nathália Ghinzelli Tessaro, Ms. Julia de Lira Kaszubowski, Mr. Lourenço Pinto Peixoto, Dr. João Antonio Matheus Guimarães, Dr. Amanda dos Santos Cavalcanti, Dr. Carlos Rodrigo De Mello Roesler

08:09 IN VIVO WEAR OF HIGHLY CROSSLINKED POLYETHYLENE IN TOTAL HIP REPLACEMENTS FROM TWO MANUFACTURERS

» [Mr. Valerio Porra](#), Dr. Peter Wahl, Dr. Michel Schlaeppli, Dr. Roman Heuberger, Dr. Deborah J. Hall, Dr. Robin Pourzal

08:12 QUANTIFICATION OF VOLUME LOSS AT THE HEAD-NECK JUNCTION IN A SERIES OF FEMORAL STEMS PREVIOUSLY IDENTIFIED TO BE AT RISK FOR CATASTROPHIC FAILURE

» [Ms. Adrianna Con](#), Dr. Matthew Teeter, Dr. Yolanda Hedberg, Dr. Brent Lanting

08:15 COMPARATIVE EVALUATION OF FOUR MATERIALS IN A CARTILAGE WEAR MODEL FOR HEMIARTHROPLASTY

» [Ms. Francesca de Vecchi](#), Ms. Victoria Marino, Dr. Thomas M. Schmid, Mrs. Arnavaz A. Hakimian, Ms. Afton K. Limberg, Mr. Jun Oike, Prof. Douglas Van Citters, Prof. Markus Wimmer

08:18 WEAR OF MAXIMOTION HIGHLY CROSS-LINKED POLYETHYLENE VERSUS BI-MENTUM CONVENTIONAL POLYETHYLENE IN A DUAL MOBILITY HIP BEARINGS

» [Dr. Mazen Al Hajjar](#), Ms. Sheung Yau Phoebe Tsang, Dr. James Anderson

08:21 Survivorship of a Highly Porous Titanium Acetabular Component with a Mean 10-Year Follow-Up

» [Dr. George Chimento](#), Dr. Miguel Jaramillo, Dr. Jimmy Daher, Mr. Cruz Velasco-Gonzalez, Dr. Bhumit Desai, Dr. Willard Moore, Dr. Brian Darrih



Continued from Friday, 19 September

- 08:00 **Short Talks -
Short Talks: ROBOTIC- ASSISTED HIP SURGERY**
Room 4
Chaired by: Mort Meftah
- 08:00 **Enhanced Outcomes of Robotic-assisted Revision THA**
» Ms. Aleksandra Qillerj, Dr. Kevin Chang, Mr. Brett Silber, Dr. Alexandra Krez, Dr. Jonathan Danoff
- 08:03 **Total Hip Arthroplasty using Posterolateral Approach: Robotic MAKO vs. Conventional Surgery – A Preliminary Study on Planning Accuracy, Biomechanical Restoration, and the Influence of Osteoarthritis Phenotypes in Unilateral Hip Osteoarthritis**
» Prof. Biagio Zampogna, Dr. Francesco Rosario Parisi, Dr. Alessandro Del Monaco, Dr. Augusto Ferrini, Dr. Andrea Zampoli, Dr. Giovanni Zagaria, Dr. Antongiulio Manfreda, Dr. Michele Paciotti, Dr. Ferruccio Vorini, Prof. Rocco Papalia
- 08:06 **EARLY FUNCTIONAL RECOVERY AND GAIT METRICS IN ROBOTIC- ASSISTED TOTAL HIP ARTHROPLASTY: A PILOT STUDY USING GLOBAL REAL-WORLD DATA**
» Mr. Adam Henderson, Dr. Mike Anderson, Dr. Massoud Akbarshahi
- 08:09 **Robotic Assisted Versus Manual Total Hip Arthroplasty Using the Direct Anterior Approach: A Comparative Analysis of Operative Time and Radiation Exposure**
» Dr. Carmelo Burgio, Dr. Karlos Zepeda, Ms. Tsion Yared, Dr. Jonathan Vigdorichik, Dr. Brian Chalmers, Dr. Elizabeth Gausden, Dr. Friedrich Boettner, Dr. Eytan Debbi
- 08:12 **Robotic Arm-Assisted vs. Conventional Total Hip Arthroplasty: A Systematic Review and Meta-Analysis of Cup Positioning and Biomechanical Assessment Using the Posterolateral Approach**
» Dr. Francesco Rosario Parisi, Prof. Biagio Zampogna, Dr. Alessandro Del Monaco, Dr. Giuseppe Francesco Papalia, Dr. Andrea Zampoli, Dr. Augusto Ferrini, Dr. Giorgio Albimonti, Dr. Antongiulio Manfreda, Dr. Michele Paciotti, Dr. Ferruccio Vorini, Prof. Rocco Papalia

- 08:15 **IMPACT OF FUNCTIONAL EVALUATION 3D SOFTWARE ON IMPINGEMENT AND CLINICAL OUTCOMES IN ROBOTIC-ARM ASSISTED TOTAL HIP ARTHROPLASTY**
» Dr. Andrea Marcovigi, Dr. Enrico Bertugli, Prof. Fabio Catani
- 08:18 **Comparison of Two-Year Implant-Related Complications Between Robotic-Assisted and Conventional Total Joint Arthroplasty**
» Dr. Adam Gordon, Mr. Patrick Nian, Mr. Joydeep Baidya, Dr. Michael Mont
- 08:21 **Trends of Robotic Total Joint Arthroplasty Utilization in the United States From 2010 to 2022: A Nationwide Assessment**
» Dr. Adam Gordon, Mr. Patrick Nian, Mr. Joydeep Baidya, Dr. Michael Mont
- 08:30 **IMPLANT WEAR and CORROSION**
Room 3
Chaired by: Prof. Markus Wimmer and Prof. Nobuhiko Sugano
- 08:30 **SIMULATING MODULAR TAPER DEGRADATION IN TOTAL HIPS UNDER PATIENT- REPRESENTATIVE LOADING SCENARIOS.**
» Ms. Charlotte Merrell, Dr. Andrew Beadling, Prof. Richard M. Hall, Prof. Imran Khan, Prof. Michael Bryant
- 08:36 **Fretting-Corrosion Behaviour of Additively and Conventionally Manufactured Ti-6Al-4V in Simulated Physiological Conditions**
» Mr. Pedro Luiz Lima dos Santos, Mr. Vidhiya Leviandhika, Prof. Michael Bryant, Dr. Andrew Beadling, Prof. Sandra Piazzolo, Dr. Gregory de Boer, Prof. Anthony C. Redmond, Prof. Cecilia Persson, Prof. Urban Wiklund, Prof. Richard M. Hall
- 08:42 **WEAR PATTERN CATEGORIZATION OF HXLPE BEARINGS IN TOTAL HIP ARTHROPLASTY VIA MACHINE LEARNING**
» Mr. Valerio Porra, Ms. Eleonora Cabai, Dr. Peter Wahl, Dr. Jonathan Gustafson, Dr. Robin Pourzal
- 08:48 **DOES CERAMIC-ON-CERAMIC TOTAL HIP ARTHROPLASTY PROVIDE AN ION-FREE IMPLANT?**
» Ms. Hena Ziaee, Mr. Andrew Shimmin, Mr. Joseph Daniel, Mr. Andy McMinn, Mr. Roger Ashton, Prof. Derek McMinn



Continued from Friday, 19 September

- 08:54 **USE OF STATISTICAL METHODS AND MACHINE LEARNING TO IMPROVE THE EFFECTIVENESS OF WEAR PARTICLE CHARACTERIZATION**
» Mr. David Castro, Mr. Arthur Paiva Grimaldi Santos, Dr. Douglas Lunkes, [Prof. Carlos Rodrigo de Mello Roesler](#)
- 09:00 **INFLUENCE OF BONE STRESS RELAXATION AND ABRASION ON MICROMOTIONS IN UNCEMENTED FEMORAL KNEE IMPLANTS: A FINITE ELEMENT STUDY**
» Mr. Thomas Gersie, Dr. Thom Bitter, Mr. Robert Freeman, Prof. Nico Verdonschot, [Dr. Dennis Janssen](#)
- 09:06 **MODERN TKA IMPLANTS DEGRADE, TRIGGERING INFLAMMATION**
» [Dr. Deborah J. Hall](#), Ms. Shabnam Aslani, Dr. Michael Kurtz, Dr. Robin Pourzal, Dr. Nicolas Piuze, Prof. Mihalko William, Dr. Jeremy Gilbert, Dr. Steven Kurtz
- 09:12 **DOES SYNOVIAL FLUID ELECTROCHEMICAL BEHAVIOR CHANGE WHEN EXPOSED TO COCRMO OR OXIDIZED ZIRCONIUM?**
» Mr. Bailey Bond, Dr. Michael Kurtz, Ms. Madison Brown, Ms. Shabnam Aslani, Mr. Harrison Smith, Ms. Alexia Paxton, Dr. Steven Kurtz, [Prof. Mihalko William](#)
- 09:18 **PYROCARBON VS COCR FOR ORTHOPAEDIC IMPLANTS: A COMPARATIVE WEAR STUDY OF PYROCARBON AND COCR ARTICULATED AGAINST UHMWPE**
» [Dr. Göksu Kandemir](#), Prof. Thomas J Joyce, Mr. Ghassene Ouenzerfi, Prof. Ian Trail, Dr. Valentin Massardier, Dr. Andre Pierre Schroder, Dr. Thierry Granjon, Mr. Michel Hassler, Dr. Ana Maria Trunfio-Sfarghiu

08:30 **Innovations in Hip Arthroplasty**
Room 4
Chaired by: Dr. GIUSEPPE SOLARINO and Prof. Justin Cobb

- 08:30 **3D printed porous acetabular shell in primary Total Hip Arthroplasty : excellent Mid-term clinical and radiographical outcomes .**
» [Prof. Sebastien Lustig](#), Dr. Denis Nam, Mr. Ahmad Faizan, Mrs. Manoshi Stoker, Dr. Michael Masini
- 08:36 **3D-Printed vs Conventional Acetabular Shells in THA: A Comparative Registry Analysis of Over 290,000 Cases**
» [Prof. Sebastien Lustig](#), Dr. Denis Nam, Mrs. Manoshi Stoker, Mr. Ahmad Faizan, Dr. Michael Masini
- 08:42 **A HIP JOINT REPLACEMENT DESIGN WITH A WEAR PARTICLE CONTROL SYSTEM**
» [Mr. Ivor Ilic](#), Dr. Lei Xu, Prof. George S D Gordon, Dr. Leiming Gao
- 08:48 **Deep Learning-based Automatic Measurement of Liner Wear and Cup Alignment after Total Hip Arthroplasty**
» [Prof. Seung-Hoon Baek](#), Dr. Jong Hun Jeong, Prof. Yeon Soo Lee
- 08:54 **Ultimate compressive strength of the BIOCERAM AZUL composite ceramic for femoral ball heads**
» [Prof. Michael Morlock](#)
- 09:00 **EFFECTS OF SURFACE FINISH ON THE WEAR OF HXLPE ON CONVENTIONAL PEEK AND 3D PRINTED PEEK FOR TOTAL HIP REPLACEMENT**
» [Mr. Ben Clegg](#), Prof. Nazanin Emami, Prof. Joanne Tipper
- 09:06 **REVERSE TOTAL HIP ARTHROPLASTY FIXATION STABILITY AND POLYETHYNE WEAR AT FIVE YEARS: A RADIOSTEREOMETRIC ANALYSIS (RSA) STUDY**
» [Dr. Thomas Turgeon](#), Dr. Colin Burnell, Dr. Eric Bohm, Dr. David Hedden
- 09:12 **RADIOGRAPHIC BONE RESPONSE AND CLINICAL OUTCOMES AT TWO YEARS FOLLOWING TOTAL HIP ARTHROPLASTY USING TWO MODULAR CONE-TYPE STEM DESIGNS**
» [Dr. RYO ORITO](#), Dr. Takeshi Ogawa, Dr. Shoya Abe, Dr. Ema Nakahara, Dr. Tsuyoshi Koyama, Dr. Takayuki Tsuda, Prof. Seiji Okada, Prof. Nobuhiko Sugano, Dr. Wataru Ando



Continued from Friday, 19 September

08:45	Short talks - Short Talks: KNEE IMPLANT TESTING <i>Room 1 & 2</i> Chaired by: Prof. Thomas M. Grupp
08:45	FATIGUE RESISTANCE OF THE STABILIZING POST OF A MODERN TKR » Mr. Joel Weisenburger , Dr. Kevin Garvin, Dr. Hani Haider
08:48	BIOMECHANICAL EVALUATION OF THE CONSTRAINT OF DIFFERENT KNEE IMPLANT DESIGNS: A CADAVERIC STUDY » Ms. Saskia A. Brendle , Mr. Sven Krueger, Prof. Joachim Grifka, Prof. Peter E. Müller, Prof. Mihalko William, Dr. Berna Richter, Prof. Thomas M. Grupp
08:51	IMPLANT FIXATION AND CONTACT KINEMATICS OF A MEDIAL-PIVOT TOTAL KNEE ARTHROPLASTY DESIGN ONE-YEAR POST-OPERATION » Ms. Rebecca Hext , Dr. Jordan Broberg, Dr. James Howard, Dr. Brent Lanting, Dr. Edward Vasarhelyi, Dr. Matthew Teeter
08:54	Comparative Analysis of Compartmental Load Metrics in Balanced Unicompartmental Knee Arthroplasty: A Cadaveric Study of Robotic-Assisted versus Conventional Techniques » Prof. Farid Amirouche , Dr. Nirav Mungalpara, Mr. Brandon Gligor, Dr. Crystal Lin, Dr. Michael Redondo, Dr. Hristo Piponov
08:57	POTENTIAL STANDARD TEST METHOD OF INITIAL MICROMOTION IN MODERN UNCEMENTED TKR TIBIAL BASEPLATES » Mr. Joel Weisenburger , Dr. Kevin Garvin, Dr. Hani Haider
09:00	Does Coronal Alignment Impact Cemented Fixation Under Lipid-Marrow Presence and Long-Term Physiological Loading? » Dr. Chase Maag , Mr. Eric Peckenpough, Mr. Dustin Albert, Mr. Mick Rock

09:03	Medial Stabilized vs. Medial Congruent vs. Posterior Stabilized: Comparing Newer and Traditional Liner Designs in Total Knee Arthroplasty » Dr. Karlos Zepeda , Mr. Edward Grabov, Ms. Tsion Yared, Dr. Carmelo Burgio, Dr. Katherine Mallett, Dr. Brian Chalmers, Dr. Peter Sculco, Dr. Eytan Debbi
09:06	EVALUATING ALL-POLYMER PEEK KNEE PROSTHESES IN CADAVERS: DETECTION OF SIMULATED IMPLANT COMPLICATIONS USING XR, CT, AND MRI » Dr. fedra zaribaf , Dr. Cedric Bohyn, Dr. Adam Briscoe, Dr. Dennis Janssen
09:30	Forum Hip resurfacing new materials/designs <i>Room 1 & 2</i> Chaired by: Dr. Edwin Su and Dr. Paul Beaulé
09:30	Farewell to BHR » Prof. Derek McMinn
09:45	Belgian Experience with Ceramic Hip Resurfacing » Dr. Koen De Smet
09:51	Approach and Related Instrumentarium for hip resurfacing: Direct anterior vs posterolateral » Dr. Paul Beaulé
09:57	New Ceramic Hip Resurfacing - Design, Instrumentation, Results » Prof. Justin Cobb
10:03	First experience of a Cobalt free/XLPE hip resurfacing » Prof. Julien Girard
10:09	Innovative Metal on Poly Hip Resurfacing - IDE study USA » Prof. Thomas Gross
10:15	What are the indications for hip resurfacing for 2025? » Prof. Bill Walter



Continued from Friday, 19 September

- 09:30 **Revision Hip Arthroplasty**
Room 3
Chaired by: Vincenzo Salini and Jean-Alain EPINETTE
- 09:30 **Long-Term Results of Revision Total Hip Arthroplasties Using Cementless Stems and Allografts for Paprosky Type III B and IV Femoral Defects**
» Dr. Young-Hoo Kim, Dr. Jang-Won Park, Dr. Young-Soo Jang, Dr. Eun-Jung Kim
- 09:36 **Femoroscopy And 3D Printed Drill Guides Improve Accuracy Of Cement Extraction In Revision Hip Arthroplasty**
» Prof. Kris govaers
- 09:42 **endoscopically assisted THA , Past , Present and future**
» Prof. Kris govaers
- 09:48 **REFIXATION OF LOOSENED CEMENTED HIP STEMS USING INDUCTIVE HEATING: FEASIBILITY AND MECHANICAL ASSESSMENT**
» Mr. Magnus Reulbach, Mr. Patrick Evers, Prof. Henning Windhagen, Dr. Florian Nürnberger, Dr. Eike Jakubowitz
- 09:54 **Biomechanical Comparison of Conventionally Shaped Intraoperative Spacers and 3D Mold-Assisted Spacers in Cases with Advanced Bone Loss**
» Dr. Mert Güler, Prof. Vasfi Karatosun, Mr. Bora Uzun
- 10:00 **ENHANCED FIT AND MINIMAL BONE PREPARATION: A STUDY ON BONE-PRESERVING CUSTOM ACETABULAR IMPLANTS**
» Ms. Sara De Angelis, Dr. Anna Di Laura, Ms. Angelika Ramesh, Dr. Johann Henckel, Prof. Alister Hart
- 10:06 **WHAT FACTORS DRIVE LYMPHOCYTE-DOMINATED ADVERSE LOCAL TISSUE REACTIONS IN TOTAL HIP ARTHROPLASTY?**
» Dr. Stephanie M. McCarthy, Dr. Deborah J. Hall, Dr. Peter Wahl, Dr. Brett Levine, Dr. Joshua Jacobs, Dr. Robin Pourzal

Hip Arthroplasty Outcomes

Room 4

Chaired by: Prof. Francesco Falez and John Hollingdale

- 09:30 **IMPACT OF PREOPERATIVE SPINOPELVIC RISK FACTORS ON FUNCTIONAL OUTCOMES AFTER TOTAL HIP ARTHROPLASTY: A RETROSPECTIVE COHORT STUDY**
» Mr. Christopher Plaskos, Dr. Hossein Shafiei, Mr. Gerard Smith, Mr. Linden Bromwich, Dr. Steve McMahon, Mr. Jon Baré, Mr. Andrew Shimmin
- 09:36 **MID-TERM OUTCOMES OF A SHORT MODULAR NECK-PRESERVING CEMENTLESS HIP STEM: A RETROSPECTIVE STUDY WITH A 6-YEAR MINIMUM FOLLOW-UP**
» Dr. Daniele De Meo, Dr. Michele Carnovale, Dr. Giovanni Guarascio, Dr. Paolo Martini, Dr. Gianluca Cera, Prof. Pietro Persiani, Dr. Vittorio Candela, Prof. Ciro Villani, Prof. Stefano Gumina
- 09:42 **AUTOMATED IMPACTION DEVICES IN PRIMARY UNCEMENTED TOTAL HIP ARTHROPLASTY: A SYSTEMATIC REVIEW AND META-ANALYSIS**
» Mr. Milos Brkljac, Mr. Eliseu Bandeira, Mr. Shrey Sharma, Mr. Kartik Logishetty, Mr. Sree Kanakala
- 09:48 **REDUCED PERIPROSTHETIC FRACTURE RATES USING COLLARED STEMS IN UNCEMENTED PRIMARY TOTAL HIP ARTHROPLASTY**
» Dr. Theofilos Karasavvidis
- 09:54 **LONG TERM FOLLOW UP OF THIN POLYETHYLENE LINERS IN TOTAL HIP ARTHROPLASTY**
» Dr. Camilo Restrepo, Ms. Jessica H. Leipman, Ms. Neeku Salehi, Dr. Eric B. Smith, Dr. James J. Purtill, Dr. Yale A. Fillingham
- 10:00 **DECREASED FRACTURE RATES WITH INCREASED UTILIZATION OF CEMENT FOR TOTAL HIP ARTHROPLASTY: A MICHIGAN ARTHROPLASTY REGISTRY COLLABORATIVE QUALITY INITIATIVE (MARCQI) STUDY**
» Dr. Clayton Foster, Dr. James Gannon, Dr. Shashank Chitta, Ms. Victoria Aquilino, Dr. Karl Roberts



Continued from Friday, 19 September

10:06 **DOES ALUMINA MATRIX COMPOSITE OUTPERFORM PURE ALUMINA IN MODERN CERAMIC-ON-CERAMIC TOTAL HIP ARTHROPLASTY? A TEN- TO 15-YEAR FOLLOW-UP STUDY**

» [Dr. Eduardo Garcia-Rey](#), Ms. Laura Saldaña, Ms. Gema Valles

10:12 **Long-Term Comparison of Ultra-Short Anatomic Cementless Stem Versus Contemporary Cemented Femoral Stem in Patients with Dorr Type C Femoral Morphology**

» [Dr. Young-Hoo Kim](#), Dr. Jang-Won Park, Dr. Young-Soo Jang, Dr. Eun-Jung Kim

10:30 **Coffee/Tea Break**

Exhibitors' Area

11:15 **Presidential Guest Lecture**

Room 1 & 2

Chaired by: Prof. Stefano Gumina

11:15 **Robotics, nature and intelligent machines will shape our future: how to find our place in the planet**

» [Prof. Maria Chiare Carrozza](#)

12:00 **Interview: Economic sustainability of innovative technologies in arthroplasty**

Room 1 & 2

Chaired by: Prof. Catherine Van Der Straeten

12:30 **Private Meeting**

Ellisse Room 5

Chaired by: Ebru Yilmaz

13:00 **Lunch Served in Exhibitors' Area**

Exhibitors' Area

13:00 **SMITH&NEPHEW Lunch Symposium**

Room 4

13:00 **Ceramtec Lunch Symposium - Ceramic on Ceramic is Resurfacing ... and it's pink**

Ellisse Room 5

14:00 **Periprosthetic Joint Infection**

Room 1 & 2

Chaired by: Prof. FARES HADDAD and Prof. PIER FRANCESCO INDELLI

14:00 **Current concepts in periprosthetic joint infection**

» [Prof. Fares Haddad](#)

14:07 **Antibiotic-eluting UHMWPE as a tool against infection**

» [Prof. Ebru Oral](#)

14:14 **New trends from Istanbul 2025 ICM on periprosthetic joint infections**

» [Mr. Giandomenico Logroscino](#)

14:21 **From intuition to evidence - CoCr as independent risk factor for PJI**

» [Mr. Alan Porporati](#)

14:28 **The application of molecular diagnostics for perioperative microorganism identification in periprosthetic joint infections (PJI): a scoping review from the European Society Sports Traumatology Knee Surgery and Arthroscopy PJI study group.**

» [Prof. PIER FRANCESCO INDELLI](#), Dr. Fjorela Qordja, Dr. Guido Bocchino, Dr. Bruno Lovrekovic, Prof. Pawel Skowronek, Dr. Bruno Violante, Prof. Marko Ostojic

14:35 **Is There an Ideal Local Antibiotic Carrier for Debridement Procedures in Acute Periprosthetic Joint Infection? Hydrogel Coating versus Calcium Sulphate Beads**

» [Dr. Daniele De Meo](#), Dr. Paolo Martini, Dr. Maria Francesca Pennarola, Dr. Vittorio Candela, Dr. Carmine Zoccali, Prof. Stefano Gumina



Continued from Friday, 19 September

- 14:42 **Does methylene blue affect intraoperative cultures in periprosthetic joint infection? A single centre three-level study from the lab to the operating room**
» Dr. Daniele De Meo, Dr. Paolo Martini, Dr. Gianluca Puggioni, Dr. Vittorio Candela, Prof. Gianmarco Raponi, Prof. Stefano Gumina
- 14:49 **Sensitization of Biofilms to Antibiotics via Low-Frequency Alternating Magnetic Fields for Safer Implant Therapies**
» Dr. Gerhard Maale
- 14:00 **Kinematics and joint stability In TKA**
Room 3
Chaired by: Prof. Rocco Papalia and Dr. Yasushi Oshima
- 14:00 **PATELLOFEMORAL KINEMATICS OF NATIVE VS. KINEMATICALLY ALIGNED TOTAL KNEE REPLACEMENT**
» Mrs. Olivia Scheide, Dr. Joe Lynch, Dr. Nicolo Malagutti, Dr. Catherine Galvin, Prof. Paul Smith, Dr. THOMAS WARD
- 14:06 **Patello-Femoral Kinematics In Image-Based Robotic-Arm Assisted Total Knee Arthroplasty**
» Prof. Fabio Catani, Dr. Francesco Zambianchi, Dr. Roberta Baraldi, Dr. Vincenzo Iorio, Dr. Sebastiano Clemenza
- 14:12 **DO TIBIOFEMORAL AND PAEELLOFEMORAL CONGRUENCIES AFFECT KNEE BIOMECHANICS ACROSS ALIGNMENT PHILOSOPHIES?**
» Mr. Dustin Albert, Mr. Amit Mane, Mr. Mick Rock
- 14:18 **DYNAMIC CT ASSESSMENT OF PATELLOFEMORAL AND TIBIOFEMORAL KINEMATICS BEFORE AND AFTER TOTAL KNEE ARTHROPLASTY**
» Ms. Miriam Boot, Dr. Sebastiaan van de Groes, Prof. Esther Tanck, Dr. Dennis Janssen

- 14:24 **Impact of Tibial Slope on PCL Tension and Anterior-Posterior Laxity in Medial Congruent Total Knee Arthroplasty: A Computational Study**
» Dr. Reza Pourmodheji, Dr. Cynthia Kahlenberg, Dr. William Long, Dr. Geoffrey Westrich, Dr. Brian Chalmers, Dr. Tim Wright, Dr. David Mayman, Dr. Carl Imhauser, Dr. Peter Sculco
- 14:30 **A Digital Twin model for ACL reconstruction decisions in Arthroplasty**
» Mr. Gokce Yildirim, Dr. Oliver Kessler
- 14:36 **Impact of Medial Stabilized vs. Medial Congruent and Fixed Bearing Implant Designs on Hamstring Strength and the Potential Effect on Dynamic Stability Following Total Knee Arthroplasty**
» Dr. Alexis Nelson-Tranum, Dr. Marcus Ford, Ms. Nuanqiu Hou, Dr. Douglas Powell, Dr. Christopher Holland, Prof. Mihalko William
- 14:42 **DIGITAL SOFT TISSUE ASSESSMENT IN TOTAL KNEE ARTHROPLASTY IS MORE REPEATABLE WITH ROBOTIC THAN MANUAL TENSIONING METHODS**
» Dr. Alexander Orsi, Mr. Christopher Plaskos, Prof. Simon Coffey, Prof. Jeffrey DeClaire, Dr. Jeffrey Lawrence, Dr. John Keggi
- 14:00 **Spine-hip relations before and after THA**
Room 4
Chaired by: Dr. Paul Beaule and Dr. Manel Ribas
- 14:00 **AI-BASED PREDICTION OF PELVIC TILT CHANGE IN THA: VALIDATION AND PILOT APPLICATION USING PAIRED RADIOGRAPHS**
» Dr. Koki Abe, Mr. Henry Bian, Ms. Sarah Kenny, Prof. Bill Walter
- 14:06 **Comparison of pelvic tilt angle during surgery in supine THA using Augmented Reality**
» Dr. Kei Yamada, Dr. Kiyonori Mizuno



Continued from Friday, 19 September

14:12 **HIP-SPINE-KNEE SYNDROME IN PATIENTS UNDERGOING THA DUE TO SEVERE CONGENITAL HIP DISEASE: 100 HIPS FOLLOWED FOR A MEAN OF 10 YEARS**

» [Dr. Eduardo Garcia-Rey](#), Prof. Enrique Gomez-Barrena, Ms. Laura Saldaña

14:18 **HIP CAPSULE PRESERVATION FOLLOWING ANTERIOR APPROACH TOTAL HIP ARTHROPLASTY – THE EFFECT ON GAIT BIOMECHANICS**

» [Prof. Lamontagne Mario](#), Dr. Nicholas Steven Ryan, Dr. Paul Beale, Dr. George Grammatopoulos

14:24 **RECREATION OF THE NATIVE CENTRE OF ROTATION REDUCES HIGH OFFSET FEMORAL CONSTRUCTS IN THA**

» Dr. Jim Pierrepont, [Mr. Christopher Plaskos](#), Mr. Linden Bromwich, Dr. Hossein Shafiei, Dr. Jean Lim, Mr. Jon Baré, Dr. Steve McMahon

14:30 **ROBUSTNESS ASSESSMENT OF AI-BASED MODELS IN OTSTM HIP ACROSS VARIED CT SCANNERS AND SETTINGS**

» [Dr. Hassan Nematj](#), Dr. Andreas Pettersson, Dr. Katharina Hausmair

14:36 **BEYOND SUPINE CT: FUNCTIONAL SPINOPELVIC ASSESSMENT THROUGH CT-EOS AND 3D-CT IMAGING**

» [Ms. Angelika Ramesh](#), Dr. Johann Henckel, Ms. Xing Lim, Ms. Sara De Angelis, Prof. Alister Hart, Dr. Anna Di Laura

14:00 **Short Talks: HIP AI, Big Data, Computer Modelling & Simulation**

Ellisse Room 5

Chaired by: Richie Harinderjit Singh Gill

14:00 **SYNTHETIC IMPLANT MIGRATION GENERATION FOR ACCURACY EVALUATION OF AN AI-BASED CT-RSA TOOL IN TOTAL HIP ARTHROPLASTY**

» [Dr. Hassan Nematj](#), Dr. Andreas Pettersson

14:03

SEX-SPECIFIC STATISTICAL SHAPE MODELLING OF THE PROXIMAL FEMUR INFORMS PLANNING OF TOTAL HIP ARTHROPLASTY

» [Ms. Angelika Ramesh](#), Dr. Johann Henckel, Ms. Sara De Angelis, Prof. Alister Hart, Dr. Anna Di Laura

14:06

ACCURACY EVALUATION OF THE POINTNET DEEP LEARNING MODEL TRAINED ON SYNTHETIC DATA FOR THE SEGMENTATION OF THE ARTICULAR SURFACE AND INTERCONDYLAR FOSSA OF THE HEALTHY FEMUR

» [Mr. Cristiano Pizzamiglio](#), Mr. Tommaso Liut, Mr. Thomas Ferro, Mr. Nathan Pyle, Dr. Alex Drew, Mr. Michele Pressacco

14:09

COMPARING THE QUALITY AND ACCURACY OF AI-GENERATED VERSUS PHYSICIAN-GENERATED VERSUS HIRED SCRIBE-GENERATED NOTES IN AN ORTHOPEDIC SURGERY CLINIC

» Mr. Noah Gilreath, Mr. Aziz Khan, Ms. Carmen Fahlen, Mr. Mohammad Daher, Dr. Jonathan Liu, [Dr. Valentin Antoci](#)

14:12

Comparing Machine Learning Models to Predict the Development of Prosthetic Joint Infection in Total Joint Arthroplasty

» Mr. Adrian Lin, [Mr. Kole Joachim](#), Dr. Brandon Gettleman, Dr. Christopher Hamad, Ms. Sumin Jeong, Ms. Amanda Perrotta, Mr. Ezekiel Dingle, Mr. Othneil Sparks, Dr. Alexandra Stavakis, Dr. Alexander Christ

14:15

ENHANCED CT ANALYSIS REVEALS FRACTURE-SPECIFIC MUSCLE CHANGES IN F/U HIP SURGERY PATIENTS: AI-DRIVEN ARTIFACT REDUCTION AND MUSCLE SEGMENTATION

» Prof. Jun-Il Yoo, [Mr. Hyeon Su Kim](#), Prof. Jung-Taek Kim, Prof. Yonghan Cha, Prof. Jin-Woo Kim

14:18

CLINICAL DATA CAPTURE FOR SURGICAL APPROACH IN TOTAL HIP ARTHROPLASTY USING A CUSTOM DEEP-LEARNING MODEL

» Mr. Kush Attal, Dr. Lefko Charalambous, [Ms. Catherine Di Gangi](#), Dr. Morteza Meftah, Ms. Saloni Haruray, Dr. Joshua Rozell



Continued from Friday, 19 September

- 14:21 **Collared and collarless stems generate high strains in around the fracture zone: a finite-element and cadaveric experimental study**
» Ms. Clarisse Zigan, Mr. Ryan Helbock, Dr. Andrew Hughes, Mr. Joseph Lipman, Dr. Tim Wright, Dr. Peter Sculco, Dr. Elizabeth Gausden, Ms. Sony Manandhar, Dr. Ghislain Maquer, Dr. Jeffrey Bischoff, Dr. Fernando Quevedo
- 14:24 **CLINICAL EXPERIENCE WITH CEMENTED DUAL MOBILITY CUP IN COMPLEX HIP DISORDERS**
» Dr. Satoshi Nakasone, Dr. Mika Takaesu, Dr. Fumiyuki Washizaki, Dr. Sakura Kuniyoshi, Dr. Kenta Otsuki, Dr. Chisato Ikema, Prof. Kotaro Nishida, Dr. Masato Ishihara, Dr. Shoichiro Yamashiro
- 14:27 **APPLICATION OF REVERSE ENGINEERING TECHNOLOGIES TO SUPPORT THE RETRIEVAL ANALYSIS OF DISTALLY FRACTURED NON-MODULAR FEMORAL STEMS IN PRIMARY TOTAL HIP ARTHROPLASTY**
» Mr. Jorge Antonio Velasco Parra, Prof. Patricia Ortega Cubillos, Mr. Lourenço Pinto Peixoto, Mr. Marco Bernardo Cury, Prof. Carlos Rodrigo de Mello Roesler, Prof. Eduardo A Fancello
- 14:30 **DEVELOPMENT AND VALIDATION OF AN IN-SILICO MODEL BASED ON IN-VITRO TESTS FOR THE PRIMARY STABILITY OF ACETABULAR CUPS**
» Ms. Vera Schuldis, Dr. Georg Hettich, Prof. Boris M. Holzapfel, Mr. Sebastian Sommerfeld, Dr. Ronja A. Schierjott-Hermle, Prof. Thomas M. Grupp
- 14:33 **BIOMECHANICAL EVALUATION OF DIAPHYSEAL LONG-STEM FIXATION CONSTRUCTS IN REVISION HIP ARTHROPLASTY: A COMPUTATIONAL ANALYSIS OF STABILITY**
» Dr. Mohammed Alshouli, Dr. Nicholas J. Dunbar, Dr. Robert Frangie, Dr. Adam Freedhand

- 14:36 **Accuracy of Two-Dimensional Digital Planning in Uncemented Primary Total Hip Arthroplasty: A Single-Center Study of 800 Implants Focusing on Femoral Stem Design**
» Dr. Francesco Rosario Parisi, Prof. Biagio Zampogna, Dr. Alessandro Del Monaco, Dr. Augusto Ferrini, Dr. Andrea Zampoli, Dr. Antonino Amalfi, Dr. Giorgio Albimonti, Dr. Giovanni Zagaria, Dr. Antongiulio Manfreda, Dr. Ferruccio Vorini, Prof. Rocco Papalia
- 14:39 **AUTOMATED 3D TEMPLATING IN HIP ARTHROPLASTY IS MORE ACCURATE, RELIABLE, AND LESS AFFECTED BY PATIENT VARIABLES THAN 2D TEMPLATING**
» Dr. Marco Schneider, Dr. Akshay Shivakumar, Dr. Atul Kamath, Dr. David Liu
- 14:42 **PREDICTING FRACTURE RISK OF CERAMIC RESURFACING HEADS WITH ADVANCED FINITE-ELEMENT-ANALYSIS AND PROBABILISTIC METHODS**
» Mr. Markus Flohr, Dr. Anne Gebert de Uhlenbrock
- 15:00 **Coffee/Tea Break**
Exhibitors' Area
- 15:30 **Emerging Technologies in Spinal Treatment: From Biomechanics to Robotics**
Room 1 & 2
Chaired by: Prof. Mazda Farshad and Prof. Philipp Fuernstahl
- 15:30 **Ex-vivo Validation of a Novel Intraoperative Surgical Navigation Concept - X23D**
» Mr. Youyang Shen, Prof. Mazda Farshad, Prof. Philipp Fuernstahl, Dr. Hooman Esfandiari
- 15:43 **Biomechanical Innovations for Spinal Treatment**
» Dr. Jonas Widmer
- 15:56 **FAROS – Functionally Accurate Robotic Spine Surgery**
» Dr. Christoph Laux



Continued from Friday, 19 September

- 16:09 **LEM Surgical – next generation hard tissue robotics**
» [Dr. Yossi Bar](#)
- 15:30 **Biomaterials**
Room 3
Chaired by: Ebru Oral and Prof. Nobuhiko Sugano
- 15:30 **Therapeutic polyethylene: possibility for pain management**
» [Prof. Ebru Oral](#)
- 15:36 **Development of artificial hip joints**
» [Mr. Nobuhiko Sugano](#)
- 15:42 **Innovation in Materials for TKA: Opportunities and Challenges**
» [Prof. Bernardo Innocenti](#)
- 15:48 **CROSSLINKING OF UHMWPE USING A BIS-DIAZIRINE CHEMICAL CROSSLINKING AGENT**
» Dr. Bruce Carvalho, [Dr. Anuj Bellare](#)
- 15:54 **A critical review of current UHMWPEs for knee prosthesis: the effect of polymer specification, manufacturing methods and patient demographics on success or failure.**
» [Dr. Moreica Pabbruwe](#), Dr. Alan Kop
- 16:00 **CLINICAL PERFORMANCE OF SEQUENTIALLY IRRADIATED HIGHLY CROSS-LINKED POLYETHYLENE TIBIAL BEARINGS: 14 YEARS DATA**
» [Mr. Alfredo Pineda de la Ballina](#), Dr. Moreica Pabbruwe, Dr. Alan Kop, Dr. Amir Ghasemi
- 16:06 **INTIE ELEMENT ANALYSIS OF LIPID UPTAKE IN UHMWPE UNDER MECHANICAL LOADING: COMBINED NUMERICAL AND EXPERIMENTAL STUDY**
» [Dr. Isabella Paris](#), Dr. Peder Solberg, Dr. Robin Pourzal, Dr. Hannah Lundberg, Prof. Douglas Van Citters

- 15:30 **Hip Resurfacing Results**
Room 4
Chaired by: Dr. Koen De Smet and Prof. Derek McMinn
- 15:30 **WILL METAL ON PLASTIC HIP RESURFACING COME OF AGE? A WEAR AND FRICTION STUDY**
» [Dr. Hani Haider](#), Mr. Joel Weisenburger, Mr. Ryan Siskey, Dr. Kevin Garvin
- 15:36 **SURVIVORSHIP OF CEMENTED VERSUS CEMENTLESS METAL ON METAL HIP RESURFACING: A MATCH-COHORT ANALYSIS AT MINIMUM FIVE YEARS**
» Dr. Edoardo Viglietta, Dr. Simone Fenucci, Ms. Ariane Parisien, Mr. Andrew Tucker, Dr. George Grammatopoulos, [Dr. Paul Beaulé](#)
- 15:42 **PREVENTING EARLY FEMORAL FAILURES IN HIP RESURFACING**
» Ms. Dani Gaillard-Campbell, [Dr. Thomas Gross](#)
- 15:48 **Propensity Score-Matched Comparison Of Hip Resurfacing Outcomes Between Very Young (≤ 25 years) And Conventional Age (50-64 Years) Patients: A Medium To Long-Term Follow-Up Study**
» [Mr. Anand Saluja](#), Mr. Zachary Wong, Mr. Louis Jordan, Dr. Edwin Su
- 15:54 **COMPARATIVE ANALYSIS OF GUIDE WIRE PLACEMENT IN HIP RESURFACING USING RADIOGRAPH-CALIBRATED VERSUS CONVENTIONAL HEAD GUIDE**
» [Mr. Pantelis Katsaros](#), Dr. Milos Brkljac, Dr. Yuki Yamamuro, Ms. Camilla Halewood, Ms. Susannah Clarke, Mr. Simon Harris, Prof. Justin Cobb, Mr. Robert Wozencroft
- 16:00 **INFLUENCE OF HEAD SIZE AND GENDER ON THE FIVE-YEAR SURVIVORSHIP OF A CERAMIC-ON-CERAMIC HIP RESURFACING: AN INTERNATIONAL MULTI-CENTER STUDY**
» Dr. Chuan Kong Koh, Dr. William L. Walter, Dr. Piers Yates, Dr. Andrew Manktelow, Dr. Koen De Smet, Mr. Jim Holland, [Dr. Paul Beaulé](#)



Continued from Friday, 19 September

16:06 **CERAMIC ON CERAMIC HIP RESURFACING ARTHROPLASTY (RECERF) - RADIOSTEREOMETRIC ANALYSIS OF IMPLANT MIGRATION AT 1-YEAR**

» [Mr. Jim Holland](#), Mr. Ian Crowther, Mr. Martin Downing

16:12 **METAL ON POLYETHYLENE HIP RESURFACING. A CLINICAL STUDY.**

» [Prof. Antonio Moroni](#), Dr. Giovanni Micera

15:30 **Short Talks: KNEE COMPUTER MODELLING &AI**

Ellisse Room 5

Chaired by: Matthias Verstraete

15:30 **Discrepancies in Long-Leg Alignment and Knee Joint Line Obliquity Between Two- and Three-Dimensional Measurements Under Weight-Bearing Conditions: Effects on CPAK Classification**

» [Dr. ryo sasaki](#), Dr. Yasuo Niki, Dr. Kazuya Kaneda, Dr. Kengo Harato, Dr. Takeo Nagura, Dr. Masaya Nakamura, Dr. Shu Kobayashi

15:33 **ETHNICITY-BASED AUTOMATIC BONE COVERAGE ASSESSMENT OF THE EMPOWER UNIVERSAL AND PHYSICA TT TIBIAL PLATES FOR PRIMARY TKA**

» Mrs. Sapna Desai, Mr. John Green, Mr. Thomas Ferro, [Mr. Cristiano Pizzamiglio](#), Mr. Michele Pressacco

15:36 **DEVIATING FROM MECHANICAL ALIGNMENT IN TOTAL KNEE ARTHROPLASTY: ARE OSTEOPHYTE-FREE KNEE KINEMATIC AND LIGAMENT STRAIN RESTORATION INTERCHANGABLE TARGETS?**

» [Dr. Periklis Tzanetis](#), Prof. nico verdonschot

15:39 **Reducing Postoperative Valgus Deformity After Femoral De-rotational Osteotomy: Influence of De-rotation and Osteotomy Method in Cases with Femoral Bowing**

» [Prof. Iisu Park](#), Dr. Hyunkwon Kim, Ms. Seonjin Shin, Prof. Tae Woo Kim, Prof. Moon Jong Chang, Prof. Dai-Soon Kwak, Prof. Seung-Baik Kang

15:42 **ANALYZING THE EFFECTS OF PATELLA THICKNESS ON PATELLOFEMORAL KINETICS AND IMPLANT DESIGN IN TKA SUBJECTS WITH RESURFACED PATELLAE**

» [Mr. Caleb Chesney](#), Dr. Michael LaCour, Dr. Richard Komistek

15:45 **Impacts of Medial Collateral Ligament (MCL) Stiffness and Initial Length Adjustment on Knee Joint Mechanics in Mechanically Aligned Posterior-Stabilized (PS) Total Knee Arthroplasty (TKA)**

» [Mr. Junseo Kim](#), Prof. Dai-Soon Kwak, Prof. In Jun Koh, Prof. Dohyung Lim

15:48 **COMPUTATIONAL AND MECHANICAL ANALYSIS OF NON-INVASIVE EXPANDABLE KNEE MEGAPROSTHESIS**

» [Mr. Gabriel Landi](#), Prof. Douglas Van Citters

15:51 **RADIOGRAPHY-DRIVEN SUBJECT-SPECIFIC MODELING FOR EVALUATING KNEE COMPARTMENT LOADS IN OBESE SUBJECTS**

» Mr. Ryan Knowles, Dr. Sean Higinbotham, Dr. Kevin Shelburne, Dr. Chadd Clary, [Dr. Casey Myers](#)

15:54 **FUNCTIONAL KNEE PHENOTYPES IN HEALTHY ASYMPTOMATIC INDIVIDUALS: AN EXPLORATORY STUDY OF 3D KINEMATIC CHARACTERIZATION DURING GAIT**

» Prof. Michael Hirschmann, [Dr. George Avram](#), Dr. Randa Elsheikh, Mr. Alix CAGNIN, Mr. Alex Fuentes, Prof. Pascal-André Vendittoli

15:57 **THE IMPACT OF POSTERIOR CRUCIATE LIGAMENT RESECTION ON SOFT TISSUE ELASTICITY IN TOTAL KNEE ARTHROPLASTY: A CADAVERIC STUDY**

» Dr. Yunfeng Zhang, [Prof. Dejin Yang](#), Dr. Zhaolun Wang, Prof. Yixin Zhou

16:00 **Ligament Attachment Site Validation from CT Scan**

» [Mr. Gokce Yildirim](#), Dr. Eric Bogner

16:03 **DYNAMIC KNEE DEFORMITY CLASSIFICATION: UNSUPERVISED MACHINE LEARNING CLUSTERING OF TKA CASES WITH A COMPUTER ASSISTED SURGERY SYSTEM**

» Dr. Prudhvi Tej Chinimilli, [Mr. Laurent Angibaud](#), Dr. François Boux De Casson, Mr. Amaury Jung, Dr. James Huddleston



Continued from Friday, 19 September

16:06 **ARTIFICIAL INTELLIGENCE IN KNEE PROSTHESIS SURGERY
DECISION-MAKING: A PREDICTIVE ALGORITHM FOR PREOPERATIVE
EVALUATION**

» Dr. Julien Lebleu, Dr. Philippe Van Overschelde, Mr. Andries Pauwels, Mr. Charles-Eric Winandy, Mr. Ward Servaes, Mr. Corentin Pangaud

16:09 **SAGITTAL GEOMETRY OF MEDIAL FEMORAL CONDYLE WITH
RESPECT OF MEDIAL COLLATERAL LIGAMENT INSERTION AND
POSSIBLE IMPLICATION ON MEDIAL LIGAMENT BALANCING IN TKA**

» Dr. Giovanni Guarascio, Dr. Stefano Perotti, Dr. Monica Mattone, Prof. Gianluca Cinotti

16:30 **SPINAL DISC REPLACEMENT SURGERY AND OUTCOMES**

Room 1 & 2

Chaired by: Prof. Philipp Fuernstahl and Prof. Mazda Farshad

16:30 **Strength of a Lumbar Total Joint Replacement Under Aggressive
Worst-Case Loading Conditions: Finite Element Simulation of a
Spine Wear Simulator**

» Prof. Steven Kurtz, Dr. Steven Rundell, Dr. Hannah Spece, Mr. Ron Yarbrough

16:36 **PERFORMANCE OF AI AUTOMATED HIP-SPINE ASSESSMENT IS
COMPARABLE TO HUMAN OBSERVERS: A STUDY INVOLVING
MULTIPLE OBSERVERS**

» Dr. Marco Schneider, Dr. Agustín Albani, Dr. Chuan-Kong Koh, Dr. Chris Rapson, Dr. Duncan Bakke, Ms. Lilian Lim, Prof. Thor Besier, Dr. George Grammatopoulos

16:42 **PRE-CLINICAL FRETTING CORROSION ASSESSMENT OF BILATERAL
SPINAL INSTRUMENTATION SYSTEMS IN SIMULATED
INFLAMMATORY CONDITIONS**

» Mr. Philipp N. Keller, Dr. Andrew Beadling, Prof. Richard M. Hall, Prof. Michael Bryant

16:48 **A NOVEL DEEP LEARNING MODEL FOR AUTOMATED
IDENTIFICATION OF SPINAL FUSION HARDWARE AND VERTEBRAL
LEVELS ON LATERAL THORACOLUMBAR RADIOGRAPHS**

» Ms. Eugenia Lee, Dr. Carmelo Burgio, Dr. Karlos Zepeda, Dr. Delano Trenchfield, Dr. Seong Jang, Dr. Eytan Debbi, Dr. David Mayman, Dr. Jonathan Vigdorich, Dr. Seth Jerabek, Dr. Peter Sculco

16:54 **DO IN VITRO FIXATION MEASUREMENTS OF CERVICAL DISC
REPLACEMENTS CORRELATE WITH CLINICAL FINDINGS OF
MIGRATION?**

» Dr. Jenna Wahbeh, Ms. Labiba Alam, Dr. Edward Ebramzadeh, Dr. Sophia Sangiorgio

17:00 **Radiographic, patient-reported outcomes and explant analyses
following cervical total disc replacement with the M6-C**

» Dr. Moreica Pabbruwe, Ms. Alana Celenza, Dr. Jessica Gaff, Dr. Audrey Chan, Dr. Michael Kern, Dr. Andrew Miles, Dr. Paul Taylor, Dr. Greg Cunningham

17:06 **DESIGN FACTORS AFFECTING THE FIXATION OF CERVICAL DISC
REPLACEMENTS: A BIOMECHANICAL ANALYSIS**

» Dr. Jenna Wahbeh, Mr. David Ballester, Dr. Edward Ebramzadeh, Dr. Sophia Sangiorgio

16:30 **Lower Limb Reconstructive Surgery and Ankle Replacement**

Room 3

Chaired by: Prof. Markus Wimmer and Prof. nico verdonschot

16:30 **In vitro evaluation of hemiarthroplasty bearing materials**

» Dr. Markus Wimmer

16:36 **ARTIFICIAL MEDIAL AND LATERAL MENISCUS PROSTHESES MIMIC
KINEMATICS OF THE NATIVE MENISCUS WITHOUT AFFECTING KNEE
JOINT MOTION: A CADAVERIC STUDY**

» Mr. Branco van Minnen, Ms. Alexis Sturm, Dr. Albert van der Veen, Dr. Sebastiaan van de Groes, Prof. Nico Verdonschot, Dr. Tony van Tienen



Continued from Friday, 19 September

- 16:42 **CORRECTION OF EXTERNAL TIBIAL ROTATION DEFORMITY IN VARUS KNEES USING A NOVEL ILIOTIBIAL BAND RELEASE TECHNIQUE: A PROSPECTIVE CONTROLLED STUDY**
» Dr. Mohamed Elfekky, Ms. Mohadese Rajaeirad, Dr. Samih Tarabichi
- 16:48 **USING AUTONOMOUS SEGMENTATION TO IDENTIFY RADIOGRAPHIC BENCHMARKS FOR SURGICAL PLANNING IN KNEE ARTHROPLASTY**
» Mr. Kwabena Ofori-Atta, Dr. Karlos Zepeda, Dr. Carmelo Burgio, Dr. Seong Jang, Mr. Xavier Garcia, Mr. Michael Mazzucco, Dr. Theofilos Karasavvidis, Dr. Cale Pagan, Dr. Ruba Sokrab, Dr. Eytan Debbi, Dr. David Mayman, Dr. Seth Jerabek, Dr. Peter Sculco, Dr. Jonathan Vigdorchik
- 16:54 **Impact of Total Ankle Replacement Tibial Implant Choice on Time-Zero Micromotion: A Biomechanical Analysis**
» Dr. Brett D. Steineman, Mr. Jeffrey W. Hoffman, Dr. Ricardo Villar, Dr. Mariana Bissoli, Ms. Kira Lu, Dr. Sunjung Kim, Dr. Jensen K. Henry, Dr. Constantine A. Demetracopoulos
- 17:00 **Towards Direct Validation of a Computational Workflow in Predicting Experimental Implant Micromotion of Total Ankle Replacements**
» Dr. Sunjung Kim, Mr. Jeffrey W. Hoffman, Dr. Ricardo Villar, Dr. Mariana Bissoli, Dr. Jonathan T. Deland, Dr. Jensen K. Henry, Dr. Constantine A. Demetracopoulos, Dr. Jonathan D. Glenday, Dr. Brett D. Steineman
- 16:30 **KNEE BIOMECHANICS & KINEMATICS**
Room 4
Chaired by: Prof. Walter Lacarbonara and Dr. ARUN MULLAJI
- 16:30 **How does the normal knee behave? A summary of cadaveric studies on 85 human specimens**
» Dr. John Kyle Mueller, Prof. Sebastian Parratte, Ms. Iris Blatter, Mr. Eik Siggelow, Mr. Charlie Parduhn, Mr. Marc Bandi

- 16:36 **KINEMATIC ASSESSMENT OF THE PATELLA IN OPEN VS CLOSED AND LOADED VS UNLOADED TOTAL KNEE REPLACEMENTS**
» Mrs. Olivia Scheide, Dr. Nicolo Malagutti, Dr. Joe Lynch, Dr. Catherine Galvin, Prof. Paul Smith, Dr. THOMAS WARD
- 16:42 **IMPACT OF TIBIAL ROTATIONAL ALIGNMENT ON THE FEMORAL ROLLBACK AND MID-FLEXION BEHAVIOR IN TOTAL KNEE ARTHROPLASTY – A MUSCULOSKELETAL SIMULATION**
» Dr. Berna Richter, Dr. Maeruan Kebbach, Mr. Sven Krueger, Mr. Leo Ruermund, Prof. Yukihide Minoda, Prof. Bernd Fink, Prof. Alexander Giurea, Prof. Rainer Bader, Prof. Thomas M. Grupp
- 16:48 **BIOMECHANICAL MODEL PREDICTIONS ON THE SENSITIVITY OF TIBIAL CONTACT FORCE DISTRIBUTION TO CORONAL PLANE ROTATION**
» Dr. Bryan Kirking, Ms. Annalisa Bertoni
- 16:54 **BIOMECHANICAL ANALYSIS OF SURGICAL ALIGNMENT AND DESIGN IN TOTAL KNEE ARTHROPLASTY**
» Prof. Bernardo Innocenti, Prof. Edoardo Bori
- 17:00 **SIX DOF KNEE GAIT KINEMATICS OF MECHANIC AND KINEMATIC ALIGNED TKA**
» Mrs. Ann-Kathrin Einfeldt, Mr. Lars Tücking, Prof. Henning Windhagen, Dr. Eike Jakubowitz
- 17:06 **ROBOTICALLY ASSISTED LASER ARTHROPLASTY: A CADAVERIC STUDY**
» Prof. Riaz Khan, Mr. Sam Withers, Dr. Brett Robertson
- 17:12 **A radiographically measured knee adduction moment as a surrogate of the peak dynamic moment**
» Dr. Fernando Quevedo, Dr. Anthony Wiggins, Mr. Joseph Lipman, Dr. Peter Sculco, Dr. Karlos Zepeda, Ms. Tsion Yared, Dr. Cynthia Kahlenberg, Dr. Tim Wright, Dr. David Mayman, Dr. Jonathan Vigdorchik, Dr. Eytan Debbi
- 17:18 **Does grade of patello-femoral cartilage wear influence pain and outcome scores in patients undergoing unicompartmental knee arthroplasty?**
» Dr. ARUN MULLAJI, Dr. ANAND GUPTA



Continued from Friday, 19 September

16:30 **Debate: Repercussions of new regulations MDR/FDA on Market entry of innovative technology/ designs/ materials**

Ellisse Room 5

Chaired by: Prof. Catherine Van Der Straeten

New Regulations MDR/FDA on market entry of innovative technology

» [Dr. Jean-Alain Epinette](#)

20:00 **GALA DINNER AT THE VILLA MIANI**

Villa Miani

Saturday, 20 September

07:00 **Posters Day 2 & Bio Lab**

Exhibitors' Area

Chaired by: Prof. Catherine Van Der Straeten and Dr. Vittorio Candela

Preoperative Patello-femoral Alignment Affects Anterior Knee Pain After Primary Total Knee Arthroplasty Without Patellar Resurfacing

» [Prof. Han-Jun Lee](#), Dr. Jae-Hyun Ko

Robotic-arm assisted total knee arthroplasty is associated with improved early functional recovery compared with conventional total knee arthroplasty

» [Prof. Han-Jun Lee](#), Dr. Jae-Hyun Ko

Long-Term Clinical Results and Patient Satisfaction After Conversion of Osseous Ankylosed Knees to Total Knee Arthroplasty

» [Dr. Young-Hoo Kim](#), Dr. Jang-Won Park, Dr. Young-Soo Jang, Dr. Eun-Jung Kim

Reproducibility of Coronal Plane Alignment of the Knee (CPAK) Using Tibia-First Restricted Inverse Kinematic Alignment

» [Dr. Amer Hallak](#), Dr. Ittai Shichman, Dr. Itay Ashkenazi, Dr. Amal Khoury, Dr. Aviram Gold, Dr. Yaniv Warschawski, Dr. Nimrod Snir

Preoperative factors associated with poor self-reported quality of life in patients with total knee arthroplasty

» [Mr. Takaya Watabe](#), Prof. Takuya Sengoku, Prof. Goro Sakurai, Prof. Shinya Yoshida, Dr. Yuta Taniguchi

Randomized Controlled Studies on Smartphone Applications and Wearable Devices for Postoperative Rehabilitation After Total Knee Arthroplasty: A Systematic Review

» [Dr. Adam Gordon](#), Mr. Patrick Nian, Mr. Joydeep Baidya, Dr. Michael Mont

Five Year Implant Survivorship and Implant Complications Among Patients Over 50 Years of Age Undergoing Primary Total Knee Arthroplasty for Osteonecrosis Versus Osteoarthritis

» [Dr. Adam Gordon](#), Mr. Patrick Nian, Mr. Joydeep Baidya, Dr. Michael Mont

Neighborhood Deprivation and Association with Implant Complications Following Unicompartmental Knee Arthroplasty: A Nationwide Analysis

» [Dr. Adam Gordon](#), Mr. Patrick Nian, Mr. Joydeep Baidya, Dr. Michael Mont

Tibia component rotation in total knee arthroplasty using intertubercular line & anterior tibial cortical margin

» [Prof. Hee-lune Kim](#)

ROBOTIC ARM ASSISTED-TOTAL KNEE ARTHROPLASTY WITH METAL AUGMENTATION FOR SEVERE VARUS KNEE DEFORMITY WITH BONE DEFECT

» [Dr. Yasushi Oshima](#), Dr. Tokifumi Majima



Continued from **Saturday, 20 September**

PREOPERATIVE KNEE FLEXION MUSCLE STRENGTH CORRELATES WITH EARLY POSTOPERATIVE ACTIVITY LEVELS IN TOTAL KNEE ARTHROPLASTY: EVALUATION USING A WEARABLE PHYSICAL ACTIVITY MONITOR

» [Dr. TOMOFUMI KINOSHITA](#), Dr. TATSUHIKO KUTSUNA, Dr. KUNIIHIKO WATAMORI, Dr. TAKASHI TSUDA, Dr. YUSUKE HORITA, Dr. KAZUNORI HINO, Prof. MASAKI TAKAO

Achievement of Desired Mechanical Alignment in Total Knee Arthroplasty: A Comparison of Techniques

» [Dr. Michael Dayton](#), Dr. Ryan Koonce, Mr. Carson Keeter, Mr. Frank Somoza, Dr. Craig Hogan

COMPARISON OF ROBOTIC-ASSISTED VERSUS MANUAL AND NAVIGATION TOTAL KNEE ARTHROPLASTY: AN OUTCOMES STUDY OF A SINGLE INSTUTION REGISTRY COMPARED TO NATIONAL BENCHMARKS

» Ms. Kaitlin Carroll, Ms. Rachel Cohen, Mr. Paul Fine-Lease, [Dr. Sean Sutphen](#)

Indication for unicompartmental knee arthroplasty from the viewpoint of anterior cruciate

» [Dr. Shinichi Fukuoka](#)

EFFECTS OF MULTIMODAL PAIN MANAGEMENT AFTER TOTAL KNEE ARTHROPLASTY ON GAIT RECOVERY AND FALLS

» [Dr. Nobuto Kitamura](#), Mr. Junya Kubota, Mr. Shota Mashimo, Mr. Hiroyuki Sato, Mr. Keita Tanaka, Ms. Erina Murosaki

MAKO IN THE REAL WORLD: FIVE YEARS OF CONSISTENT AND EFFICIENT ROBOTIC TKA IN A NON-ACADEMIC CENTER

» [Dr. Arne Kienzle](#), Mr. Fan Wei, Dr. Joost Burger, Ms. Sandy Gansiniec, Mr. Caspar Reinders, Dr. Adrianus den Hertog

SIMULATED KNEE CONTACT FORCES IN MECHANICALLY VS. KINEMATICALLY ALIGNED TKA USING SPECIMEN-SPECIFIC MUSCULOSKELETAL MODELS

» [Dr. Stefanie John](#), Mr. Dennis Nebel, Prof. Michael Schwarze

TOTAL KNEE ARTHROPLASTY WITH AUGMENTED-REALITY NAVIGATION IMPROVES PATIENT REPORTED OUTCOMES AT TWO MONTHS COMPARED TO ROBOTIC ARM ASSISTED SURGERY

» Dr. Yagiz Ozdag, Dr. Alex Tang, [Dr. John Mercuri](#)

Coupling mechanism failure in hinged total knee arthroplasty upon coupling rotation – An in vitro study

» [Dr. Therese Bormann](#), Prof. J. Philippe Kretzer, Ms. Lena Pett, Dr. Sebastian Jäger

CEMENTLESS TKA IS ASSOCIATED WITH BETTER OUTCOMES THAN CEMENTED TKA

» [Mr. John Slevin](#), Mr. Anthony Seddio, Mr. Philip Ratnasamy, Dr. Michael Kaplan, Dr. Jonathan Grauer, Dr. Lee Rubin

RADIOSTEREOMETRIC ANALYSIS AND WEIGHT-BEARING COMPUTED TOMOGRAPHY TO COMPARE GAP BALANCING AND MEASURED RESECTION SURGICAL TECHNIQUES AT FIVE YEARS POST-OPERATION

» [Ms. Rebecca Hext](#), Ms. Purnima Sainani, Dr. James Howard, Dr. Brent Lanting, Dr. Matthew Teeter

Postoperative thermal perception following total knee replacement

» [Mr. Tobi Oputa](#), Ms. Sharon Ferdinandus, Mr. Dominic Clarke, Prof. Hemant Pandit, Mr. Ram Venkatesh

Beyond the Learning Curve: Evaluating Long-Term Efficiency and Workflow Challenges in Robotic-Assisted Total Knee Arthroplasty

» [Dr. Joost Burger](#), Mr. Fan Wei, Dr. Arne Kienzle, Ms. Sandy Gansiniec, Dr. Casper Reinders, Dr. Adrianus den Hertog

REDUCED INCIDENCE OF MID-FLEXION INSTABILITY WITH FORCE-CONTROLLED GAP-BALANCING IN TOTAL KNEE ARTHROPLASTY

» [Mr. Laurent Angibaud](#), Mr. Amaury Jung, Dr. Prudhvi Tej Chinimilli, Dr. Omar Naji, Dr. Hiroshi Watanabe, Dr. Pedro Torrijos, Dr. Mattia Filanti, Dr. James Huddleston

DOES RESURFACING THE PATELLA AFFECT MECHANICS OF THE KNEE AFTER TKA?

» [Mr. Caleb Chesney](#), Dr. Michael LaCour, Dr. Richard Komistek



Continued from **Saturday, 20 September**

HOW DOES CONSTRAINING POST-OPERATIVE JOINT LINE OBLIQUITY IN KINEMATIC ALIGNMENT AFFECT OUTCOMES IN TOTAL KNEE ARTHROPLASTY?

» [Mr. Caleb Chesney](#), Dr. Michael LaCour, Dr. Richard Komistek

DETAILED CAM-POST ENGAGEMENT MECHANICS FOR A SYMMETRICAL PS TKA

» [Dr. Michael LaCour](#), Mr. Zheng Peng, Mr. Garrett Dessinger, Dr. Richard Komistek, Dr. Tom Bradbury

FROM EMPIRICAL TO ANALYTICAL: SOFT-TISSUE TENSION GAUGING IN TOTAL KNEE ARTHROPLASTY

» [Dr. Xiang-Dong Wu](#), Dr. Yunfeng Zhang, Dr. Zhuyi Ma, Dr. Qi Wang, Prof. Hongyi Shao, Prof. Dejin Yang, Prof. Yixin Zhou

UNDERSTANDING THE CONTRIBUTION OF SEQUENTIAL TKA STEPS TO EXTENSOR MECHANISM DISRUPTION POST-SURGERY

» [Dr. Maria Moralidou](#), Ms. Rima M Nasser, Prof. Justin Cobb, Dr. Richard Jan Van Arkel

QUALITATIVE ANALYSIS OF DISTAL AND POSTERIOR FEMORAL BONE RESECTION IN VARUS KNEES UNDERGOING ROBOTIC ASSISTED TOTAL KNEE ARTHROPLASTY.

» [Dr. Sanjay Londhe](#), Dr. Govind Baranwal, Dr. Ravi Shah

COMPARING 5 YEAR SURVIVORSHIP IN CRUCIATE-RETAINING AND POSTERIOR-STABILIZED TOTAL KNEE ARTHROPLASTY TRIATHLON SIZE 1 AND 2 FEMURS

» [Dr. Camilo Restrepo](#), Ms. Neeku Salehi, Ms. Jessica H. Leipman, Dr. Yale A. Fillingham, Dr. James J. Purtill, Dr. Eric B. Smith

Increased 30-Day Readmission Rates in Total Knee Arthroplasty Patients Utilizing Hypoallergenic Implants

» Dr. Justin Moo Young, Mr. Viraj Deshpande, Ms. Napat Intarachumnum, Dr. Steven Barnett, [Dr. Matthew Siljander](#)

Bi-Cruciate Stabilized (BCS) polyethylene design improves anterior posterior and rotational stability in total knee arthroplasty

» [Prof. Keinosuke Ryu](#), Dr. Shun Suzuki, Dr. Takahiro Sugawara, Prof. Yoshihiro Matsumoto

EVALUATING THE ACCURACY OF HANDHELD NAVIGATION FOR TKA: A WETLAB STUDY

» [Mr. Casimir Schwank](#), Dr. Dharmpal Vansadia, Dr. Stephen Raterman

Pre-/intra-operative knee kinematic and ligament stability evaluation integrated in the workflow towards personalised alignments and functional kinematic phenotypes in total knee arthroplasty

» [Prof. Thomas M. Grupp](#), Prof. William R Taylor, Prof. Ricardo Larrainzar-Garijo, Prof. Peter E. Müller, Prof. Björn Gunnar Ochs, Prof. Matthias Woiczinski, Prof. Henning Windhagen, Prof. Ludger Gerdesmeyer, Dr. Gavin McHugh, Dr. Berna Richter, Dr. Adrian Sauer, Ms. Ariana Ortigas-Vásquez, Ms. Saskia A. Brendle, Dr. Ronja A. Schierjott-Hermle, Dr. Raphael Renaudot, Mr. Allan Maas

DOES HIGH BMI AFFECT ACL STATUS AND FUNCTIONAL OUTCOME?-Comparative Study Between Conventional UKA and Robotic UKA With Mid-Term Follow-Up of 7 Years.

» Dr. ASHOK KUMAR PODHILI SUBRAMANI, Dr. Pichai Suryanarayan, [Dr. Aashay Sonkusale](#), Dr. Shantanu Patil, Dr. Kalaivanan Kanniyan, Dr. Vijay Bose

PREOPERATIVE DYNAMIC CORONAL ALIGNMENT MARKERS ARE ASSOCIATED WITH INTRAOPERATIVE GAPS IN HANDHELD ROBOTIC-ASSISTED TOTAL KNEE ARTHROPLASTY: PILOT ANALYSIS

» Dr. Pierre RANGER, Ms. Bianca MAROIS, Mr. Alix CAGNIN, Mr. Mohammad El Kazouiny, [Mr. Alex Fuentes](#)

NOVEL COORDINATE MEASURING TECHNIQUE FOR QUANTIFYING FEMORAL CONDYLE WEAR IN TOTAL KNEE ARTHROPLASTY: SURFACE DEVIATION MAPPING AND LIMITATIONS OF PROFILOMETRY

» [Ms. Taber Ball](#), Dr. Edward Ebramzadeh, Dr. Sophia Sangiorgio



Continued from **Saturday, 20 September**

COMPARATIVE ANALYSIS OF CONVENTIONAL VS PATIENT SPECIFIC PRIMARY TKA IMPLANTS IN VALGUS KNEE: A FINITE ELEMENT STUDY.

» Mr. Mattia Sisella, Ms. Chiara Soli, Prof. Antonio Gigante, Prof. Bernardo Innocenti

Evaluation of accuracy and complications in Total Knee Arthroplasty using an AR navigation system.

» Dr. MASAHICO YANAGISAWA, Dr. Hyunho Lee, Dr. Shuhei Oda, Dr. Eiji Cho, Prof. Keinosuke Ryu, Prof. Kazuyoshi Nakanishi

BIOMECHANICAL EVALUATION OF MECHANICAL, KINEMATIC, AND INVERSE KINEMATIC TKA ALIGNMENT IN MILD AND SEVERE VARUS DEFORMITIES: A FINITE ELEMENT STUDY.

» Mr. Mattia Sisella, Ms. Anna Carrara, Ms. Nicol Giacoppo, Dr. Arcangelo Russo, Dr. Gianluca Costa, Dr. Gianluca Zocco, Prof. Bernardo Innocenti

Biomechanical Evaluation of Cemented and Press-Fit Distal Femur Replacement: Implications for Surgical Guidelines

» Prof. Bernardo Innocenti

IS THE RELIABILITY OF GAP ASSESSMENT DURING ROBOTIC-ASSISTED TOTAL KNEE ARTHROPLASTY TECHNIQUE-DEPENDENT?

» Dr. Daniel Mascarenhas, Mr. Sabir Ismaili, Dr. Shuyang Han, Dr. Hongjia He, Ms. Camryn Pletka, Dr. Steven Schroder, Dr. David Doherty, Dr. Robert Frangie, Dr. Adam Freedhand

PLACEMENT OF TKA COMPONENTS MATTERS IN VIRTUAL KNEE COMPUTER MODELS

» Mr. Eik SiggeLOW, Ms. Iris Blatter, Mr. Marc Bandi

Musculoskeletal simulation on mid-flexion stability in cruciate-sacrificing total knee replacement designs without post-cam mechanism

» Dr. Maeruan Kebbach, Mr. Sven Krueger, Mr. Leo Ruehrmund, Dr. Berna Richter, Prof. Yukihide Minoda, Prof. Thomas M. Grupp, Prof. Rainer Bader

COMPARING IMU- VERSUS MARKER-BASED KNEE KINEMATICS IN A MAGNETICALLY DISTURBED ENVIRONMENT

» Ms. Naire Regazzi, Ms. Ariana Ortigas-Vásquez, Mr. Raphael Surbeck, Mrs. Ann-Kathrin Einfeldt, Dr. Adrian Sauer, Mr. Allan Maas, Prof. William R. Taylor, Prof. Thomas M. Grupp

EVALUATING THE SHOCK-ABSORBING PROPERTIES OF THE HUMAN KNEE JOINT: EFFECT OF A MEDIAL MENISCUS PROSTHESIS

» Mr. Branco van Minnen, Dr. Albert van der Veen, Mr. Wout Hilgenga, Dr. Tony van Tienen, Dr. Dennis Janssen

Impact of Travel Distance on Patient-Reported Outcomes Following Primary Total Knee Arthroplasty

» Dr. Miguel Jaramillo, Dr. Bhumi Desai, Dr. Jimmy Daher, Dr. Tunde Abubakar, Mr. Cruz Velasco-Gonzalez, Dr. Willard Moore, Dr. George Chimento

Cementless Robotic-Assisted vs Manual Total Knee Arthroplasty Outcomes: A Single Center MARCQI-Based Study

» Dr. Alexander Ziedas, Dr. William Kesto, Dr. Michael Laker, Dr. Jefferey Michaelson, Dr. David Knesek, Dr. Todd Frush, Dr. David Markel

PREDICTION OF TIBIAL POST IMPLANT STRESS IN A MID-LEVEL CONSTRAINT KNEE DESIGN

» Mrs. Alice de Courcy - Grylls, Mr. Amit Mane, Mr. Sanjiv Chandran, Dr. Martin Preutenborbeck

ACCURACY OF A NOVEL SYSTEM FOR PRE-RESECTION SOFT TISSUE ASSESSMENT IN TOTAL KNEE ARTHROPLASTY

» Dr. Alexander Orsi, Mr. Christopher Plaskos, Dr. John Keggi, Dr. Jeffrey Lawrence, Dr. Andrew Lehman, Dr. Travis Scudday, Prof. Simon Coffey, Prof. Vasili Karas

NEXTAR-ASSISTED TOTAL KNEE ARTHROPLASTY IMPROVES DYNAMIC GAIT DEFICIENCIES IN VARUS ALIGNED KNEES – AN EXPLORATORY ANALYSIS

» Dr. John Mercuri, Ms. Bianca MAROIS, Mr. Alix Cagnin, Mr. Alex Fuentes



Continued from **Saturday, 20 September**

MARKERLESS REGISTRATION AND TRACKING FOR TOTAL KNEE ARTHROPLASTY UTILIZING STRUCTURED LIGHT AND ARTIFICIAL INTELLIGENCE

» Dr. Huy Phan, Dr. Tim Closs, Mrs. Alison Klika, Dr. Wael Barsoum, Dr. David Jacofsky, Dr. Tom Harte

Image-based robotic total knee arthroplasty preserves the knee joint line level even in advanced fixed flexion deformities when combined with functional alignment principles: A retrospective comparative cohort study

» Dr. Giacomo Pacchiarotti, Dr. George Avram, Dr. Alessandro Todesca

Coupling elements in a revision total knee arthroplasty system loosen over time – A retrieval analysis

» Dr. Therese Bormann, Ms. Lena Pett, Dr. Sebastian Jäger, Prof. J. Philippe Kretzer

PREDICTING ROBOTIC-ASSISTED SURGICAL PLANS IN TOTAL KNEE ARTHROPLASTY USING MACHINE LEARNING

» Dr. Alexander Orsi, Mr. Christopher Plaskos, Dr. Jim Pierrepont, Dr. Stefan Kreuzer, Prof. Simon Coffey

RETURN TO SPORT AFTER UNICOMPARTMENTAL KNEE ARTHROPLASTY: A SYSTEMATIC REVIEW AND META-ANALYSIS

» Mr. John Slevin, Mr. Mohamad Albadaine, Ms. Julie Mekhail, Mr. Om Jahagardar, Dr. Michael Kaplan, Dr. Motasem Salameh, Dr. Lee Rubin

PATIENT-SPECIFIC FEMORAL ROTATION IN ROBOTIC TKA: CAN FLEXION STRESS TESTING REPLACE TRADITIONAL TENSIONING DEVICES?

» Dr. Massoud Akbarshahi, Dr. Rami Sorial, Mrs. Sabine Montenegro

MOVING BEYOND THREE DEGREES: HIGH VARIABILITY IN FEMORAL COMPONENT ROTATION WHEN USING A LIGAMENT-GUIDED APPROACH TO TOTAL KNEE ARTHROPLASTY

» Dr. Billy Kim, Mr. Ryan Cheng, Dr. Fernando Quevedo, Dr. David Mayman, Dr. Eytan Debbi, Dr. Tony Shen

A COMPREHENSIVE BIOMECHANICAL STUDY OF THE PATELLOFEMORAL JOINT: PART II: THE EFFECT OF THE PATELLA THICKNESS

» Dr. Mounir Boudali, Mr. Jobe Shatrov, Dr. Koki Abe, Dr. David Parker, Prof. William Walter, Dr. Elizabeth Clarke

KNEE IMPLANT WEAR RESULTING FROM LOAD CONTROL AND DISPLACEMENT CONTROL TESTS

» Dr. MARCIA MARU DE MORAES, Mr. Ricardo Santos, Dr. Rafael Trommer

The “Grand Piano” Sign Does Not Strike the Right Note!

» Dr. ARUN MULLAJI, Dr. ANAND GUPTA

MISRO ROBOTIC-ASSISTED TKA: ANALYZING THE IMPACT OF OPERATIVE TIME AND SURGICAL TEAM ANXIETY ON ALIGNMENT ACCURACY

» Dr. Ravi Teja Rudraraju, Dr. Kunal Aneja, Dr. Ponnanna Karineravanda Machaiah, Dr. Supreet Bajwa

ACCURACY AND RELIABILITY OF THE PHEEZEE DEVICE FOR ASSESSING KNEE RANGE OF MOTION: A COMPARATIVE STUDY WITH AN ELECTRONIC GONIOMETER

» Dr. Ravi Teja Rudraraju, Dr. Ponnanna Karineravanda Machaiah, Dr. Supreet Bajwa, Dr. Kunal Aneja

A COMPREHENSIVE BIOMECHANICAL STUDY OF THE PATELLOFEMORAL JOINT: PART III: THE EFFECT OF LATERAL CONDYLE LENGTHENING

» Dr. Mounir Boudali, Mr. Jobe Shatrov, Dr. Koki Abe, Dr. David Parker, Prof. Bill Walter, Dr. Elizabeth Clarke

Cementless total knee arthroplasty is non-inferior to cemented with unrestricted kinematic alignment technique: a clinical and radiographic analysis.

» Mr. Joshua Hancock, Mr. Kiran Kittur, Mr. Richard Rivera, Dr. Peter Simon, Dr. George Kolettis, Dr. Brian Palumbo



Continued from **Saturday, 20 September**

What Is the Impact of Patellar Resurfacing Versus No Resurfacing on Clinical and Functional Outcomes in a Modern Primary Total Knee Arthroplasty Design?

» Dr. Farouk Khury, Dr. Anzar Sarfraz, Ms. Catherine Di Gangi, Ms. Saloni Haruray, Mr. Garrett Ruff, Dr. Morteza Meftah, Dr. Vinay Aggarwal

KINEMATIC ALIGNMENT IN TOTAL KNEE ARTHROPLASTY PROVIDES SUPERIOR FUNCTIONAL OUTCOMES COMPARED TO MECHANICAL ALIGNMENT ACROSS VARUS PHENOTYPES: A RETROSPECTIVE COHORT STUDY

» Dr. Giovanni Perricone, Dr. Edoardo Franceschetti, Dr. Stefano Campi, Dr. Andrea Tanzilli, Dr. Giancarlo Giurazza, Dr. Pietro Gregori, Prof. Rocco Papalia

Impact of tibial slope variation on clinical outcomes in kinematic and mechanical alignment total knee arthroplasty

» Dr. Marco Spatuzzi, Dr. Alessandro Del Monaco, Dr. Giovanni Perricone, Dr. Andrea Tanzilli, Dr. Edoardo Franceschetti, Dr. Stefano Campi, Prof. Matteo Formica, Prof. Rocco Papalia, Dr. Marco Edoardo Cardinale

TIBIAL SLOPE AND CPAK PHENOTYPE: IS THERE AN ASSOCIATION BETWEEN THE SAGITTAL AND CORONAL PLANES? A RADIOGRAPHIC ANALYSIS IN OSTEOARTHRITIC PATIENTS UNDERGOING TOTAL KNEE ARTHROPLASTY

» Dr. Alessandro Del Monaco, Dr. Marco Spatuzzi, Dr. Andrea Tanzilli, Dr. Giovanni Perricone, Dr. Edoardo Franceschetti, Dr. Stefano Campi, Prof. Matteo Formica, Prof. Rocco Papalia, Dr. Francesco Rosario Parisi

Comparison of Biomechanical Parameters between Conventional and Robotic-assisted UKA and Validation of UKA FE Model via In-vitro Experiments

» Prof. Farid Amirouche, Dr. Yeseop Park

Residual Al2O3 from Grit Blasted Tibial Trays Result in Third Body Wear Particles on the Bearing Surface of CoCrMo Retrieved Knees

» Dr. Jeremy Gilbert, Mr. Peter Kurtz, Mr. Bradley Gordon, Dr. Charley Goodwin, Ms. Emma Barnes, Mr. Dinghe Liu, Prof. Steven Kurtz, Prof. Mihalko William, Dr. Nicolas Piuze

COMPARISON OF FUNCTIONAL OUTCOMES OF INTRAOPERATIVE GREATER TUBEROSITY FRACTURES IN REVERSE SHOULDER ARTHROPLASTY: A MATCHED COHORT STUDY

» Dr. Stephen Weber, Dr. Laurence Okeke, Dr. Prashant Meshram, Dr. Piotr Lukasiewicz, Dr. Sarah Goldfarb, Dr. Necati Bahadır Eravsar, Dr. James Padley, Dr. Matthew Best, Dr. Joel Berwell, Dr. Umasuthan Srikumaran, Dr. Edward McFarland

Osteonecrosis of the Humerus: Trends in Surgical Management of a Nationwide Sample From 2010 to 2021

» Dr. Adam Gordon, Mr. Joydeep Baidya, Mr. Patrick Nian, Dr. Michael Mont, Dr. Jack Choueka

Reverse total shoulder arthroplasty in Octogenarians: a national database analysis of Implant complications

» Dr. Adam Gordon, Mr. Jake Schwartz, Dr. Ramin Sadeghpour, Dr. Jack Choueka

INTERPOSITION ARTHROPLASTY WITH SUSPENSIONPLASTY AND SOFT TISSUE ARTHROPLASTY

» Mr. Conner Hall, Dr. Srinath Kamineni

Outcomes of Modular Diaphyseal vs. Non-modular Metaphyseal rTSA stem for 3 and 4 part Proximal Humerus fractures

» Dr. Andrew Lachance, Ms. Arpitha Pamula, Dr. Carter Whittemore, Dr. Joseph Choi

PROXIMAL HUMERAL BONE RESORPTION IN REVERSE TOTAL SHOULDER ARTHROPLASTY: 3D VOLUMETRIC ANALYSIS AND ASSOCIATED RISK FACTORS

» Dr. Hyung Jun Koo, Prof. Sae Hoon Kim



Continued from **Saturday, 20 September**

CONTINUUM OF TESTING TO CHARACTERIZE THE INITIAL FIXATION OF STEMLESS SHOULDER IMPLANTS

» Mr. Kyle Snethen, Mrs. Christine Mueri, Mr. Yang Son, Mr. Marc Bandi

Short-term clinical and radiologic outcomes of reverse total shoulder arthroplasty with navigation system in the Asian population: a retrospective comparative study

» Dr. Seung Jin Yoo, Dr. JAE CHUL (JC) YOO, Dr. Seong San Park, Dr. JongHun Kim

Acquired Acromion Compromise, Including Thinning and Fragmentation, Is Not Associated With Poor Outcomes After Reverse Shoulder Arthroplasty

» Dr. Seung Jin Yoo, Dr. JAE CHUL (JC) YOO, Dr. Seong San Park, Dr. JongHun Kim

STATIC 3D PLANNING CAN PREDICT POSTOPERATIVE INTERNAL ROTATION AFTER REVERSE SHOULDER ARTHROPLASTY: THE ROLE OF GLENOCORACOID DISTANCE AND CORACOID MORPHOMETRY

» Dr. Vittorio Candela, Dr. Yuri Piccolo, Dr. Daniele De Meo, Dr. Giovanni Guarascio, Dr. Carmine Zoccali, Dr. Alessandro Calistri, Prof. Stefano Gumina

Kinematic assessment of the scapulohumeral rhythm in shoulders with reverse shoulder arthroplasty

» Dr. Gian Mario Micheloni, Dr. Andrea Giorgini, Dr. Rocco Bonfatti, Dr. Alessandro Donà, Dr. Davide Basile, Prof. Giuseppe Porcellini

POLYETHYLENE WEAR IN REVERSE TOTAL SHOULDER ARTHROPLASTY: IS OSTEOLYSIS AT THE HORIZON?

» Mr. Remi Ben-Davies, Mrs. Jennifer Wright, Dr. Deborah J. Hall, Dr. Michael Godoy, Ms. Arden Chen, Ms. Julia Hochstatter, Dr. Gregory Nicholson, Dr. Grant Garrigues, Dr. Robin Pourzal

VALIDATION OF A COMPUTATIONAL REPRESENTATION OF A WEAR SIMULATOR FOR ARTIFICIAL SHOULDER IMPLANTS

» Dr. Martin Preutenborbeck, Mr. Mathew Walkington, Mr. Daniel Vasconcellos, Dr. Chase Maag

BIOMATERIALS AND ADVANCING FIXATION TECHNIQUES IN REVERSE SHOULDER ARTHROPLASTY

» Mr. Ben Wesorick, Ms. Aghdas Movassaghi, Ms. Lana Smith, Ms. Lexi Lewis, Dr. Ken Gall, Dr. Jocelyn Lubert, Dr. Vani Sabesan

RISK FACTORS FOR REVISION FOLLOWING PRIMARY TOTAL SHOULDER ARTHROPLASTY IN A SINGLE HEALTH SYSTEM (HCA)

» Ms. Aghdas Movassaghi, Dr. Connor Donley, Ms. Camberly Moriconi, Mr. Keith Sims, Dr. Jocelyn Lubert, Dr. Vani Sabesan

INCREASING POLYETHYLENE CONSTRAINT IN REVERSE SHOULDER ARTHROPLASTY REDUCES RANGES OF MOTION

» Mr. Cole Fleet, Dr. Patrick Carroll, Dr. James Johnson, Dr. George Athwal

SUPRASPINATUS TENDON PRESERVATION IN REVERSE TOTAL SHOULDER ARTHROPLASTY FOR PROXIMAL HUMERUS FRACTURES: A COMPARATIVE STUDY

» Prof. Seungyong Sung, Dr. Sungho Oh

EVALUATING THE FRAGILITY AND ROBUSTNESS OF RANDOMIZED CONTROL TRIALS IN PROXIMAL HUMERUS FRACTURE MANAGEMENT

» Mr. Matthew McKinley, Ms. Aghdas Movassaghi, Dr. Jocelyn Lubert, Mr. Chase Burzynski, Ms. Lana Smith, Dr. Garrett Jackson, Dr. Vani Sabesan

A COST-EFFECTIVENESS ANALYSIS OF PROXIMAL HUMERUS FRACTURE TREATMENT IN OLDER ADULTS

» Mr. Chase Burzynski, Mr. Matthew McKinley, Mr. Evan Sidebotham, Ms. Aghdas Movassaghi, Mr. Alex Stubblefield, Dr. Jocelyn Lubert, Dr. Vani Sabesan

Continued from **Saturday, 20 September**
THE PROCESS OF CUSTOMIZATION IN SHOULDER ARTHROPLASTY: ADVANCEMENTS IN 3D DESIGN AND MANUFACTURING

 » Mr. Ben Wesorick, Ms. Aghdas Movassaghi, Ms. Lana Smith, Dr. Jocelyn Lubert, Ms. Lexi Lewis, Dr. Vani Sabesan

EVALUATING THE ROLE OF JOINT LINE OBLIQUITY IN EARLY FUNCTIONAL RECOVERY IN TKR PATIENTS

 » Dr. Massoud Akbarshahi, Dr. Peter McEwen, Mr. Faseeh Zaidi, Dr. Josh Petterwood, Dr. Paul Monk, Mrs. Sabine Montenegro

 08:00 **Breakfast**
Exhibitors' Area

 08:00 **Short Talks: KNEE KINEMATICS & ALIGNMENT 1**
Room 1 & 2
Chaired by: Dr. Petra Heesterbeek

 08:00 **MULTIPLE SURGEON EVALUATION OF JII SYSTEM KINEMATICS COMPARED TO THE NORMAL KNEE**
» Dr. Michael LaCour, Mr. Garrett Dessinger, Dr. Richard Komistek

 08:03 **CONSISTENT CODYLAR ROLLBACK AND REPEATABLE KINEMATICS IN REVISION HINGE TKA**
» Dr. Michael LaCour, Mr. Garrett Dessinger, Dr. Herrick Siegel, Dr. Richard Komistek, Dr. Mason Frazier

 08:06 **Sagittal stability in reducing femoral radius PS knees compared with single radius CR knees.**
» Dr. fabio Mancino, Dr. Piers Yates, Dr. Christopher Jones

 08:09 **INVESTIGATING PRE-OPERATIVE JOINT-LEVEL BIOMECHANICS IN PARTIAL VERSUS TOTAL KNEE ARTHROPLASTY**
» Ms. Madeline Rao Shishis, Mr. Matthew Ruder, Dr. Vincenzo Di Bacco, Dr. Kim Madden, Dr. Anthony Adili, Dr. Dylan Kobsar

 08:12 **OPTIMAL JOINT LAXITY IS IMPLANT DEPENDENT: A COMPARISON OF ULTRA-CONGRUENT VERSUS POSTERIOR-STABILIZED TKA**

 » Mr. Christopher Plaskos, Dr. Edgar Wakelin, Prof. Jeffrey DeClaire, Prof. Jan Koenig, Dr. Corey Ponder, Dr. Jeffrey Lawrence, Dr. John Keggi, Dr. Amber Randall

 08:15 **STATIC CORONAL ALIGNMENT MEASURED BY KNEEKG IS COMPARABLE TO X-RAY AND ROBOTIC ALIGNMENT MEASURES IN TOTAL KNEE ARTHROPLASTY**

 » Prof. Sebastien Lustig, Dr. Julien Erard, Mr. Alix CAGNIN, Dr. Jean Baltzer, Mr. Alex Fuentes, Ms. Laurence Chêze, Ms. Nicola Hagemester, Dr. Cécile Batailler

 08:18 **POSTOPERATIVE FOOT PAIN FOLLOWING TOTAL KNEE ARTHROPLASTY AND POTENTIAL CONTRIBUTING FACTORS**

 » Dr. Jordan Ankersen, Dr. Bradley Lambert, Ms. Alex Ramos, Mr. Thomas Sullivan, Mr. Blesson Varghese, Dr. Sree Vemu, Dr. Timothy Brown, Dr. Jason Ahuero

 08:00 **Short Talks: SHOULDER SURGERY AND COMPLICATIONS**
Room 3
Chaired by: Prof. Sae Hoon Kim

 08:00 **HOW TO OPTIMIZE BASEPLATE PLACEMENT IN REVERSE SHOULDER ARTHROPLASTY: DESCRIPTION AND VALIDATION OF THE THE "11-MM RULE**

 » Dr. Giovanni Perricone, Dr. Edoardo Franceschetti, Dr. Pietro Gregori, Dr. Michele Paciotti, Dr. Andrea Tanzilli, Dr. Giancarlo Giurazza, Prof. Rocco Papalia

 08:03 **RISK FACTORS ASSOCIATED WITH 30-DAY INPATIENT MORTALITY AFTER SHOULDER ARTHROPLASTY**

 » Dr. Stephen Weber, Dr. Eve Glenn, Dr. Laurence Okeke, Dr. James Padley, Dr. Alexander Zhu, Dr. Jessica Schmerler, Dr. Edward McFarland

 08:06 **Multiple Sclerosis is Associated with Increased Shoulder Dislocations Following Reverse Shoulder Arthroplasty**

 » Dr. Adam Gordon, Mr. Jake Schwartz, Dr. Ramin Sadeghpour, Dr. Jack Choueka



Continued from **Saturday, 20 September**

08:09 **Restoration of Rotator Cuff Muscle Forces in Lower Trapezius Transfer and Superior Capsular Reconstruction in Massive Rotator Cuff Tear**

» [Dr. Jason Koh](#), Dr. Nirav Mungalpara, Dr. Sunjung Kim, Dr. Cody Lee, Dr. Hayden Baker, Dr. Aravind Athiviraham, Prof. Bassem Elhassan, Prof. Farid Amirouche

08:12 **A GLENOID-BASED SOLUTION TO SCAPULAR NOTCHING IN REVERSE SHOULDER ARTHROPLASTY: OUTCOMES OF METALLIC LATERALIZATION AND INFERIOR TILT AT SHORT-TERM FOLLOW-UP**

» [Prof. Raffaele Russo](#), Dr. Alfonso Fedele, Dr. Daniele Pianese, Dr. Valentina Rossi, Dr. Martina Coppola

08:15 **The radiographic and clinical outcomes of stemless reverse total shoulder arthroplasty: a minimum 2-year follow-up study**

» [Prof. Jun-Young Kim](#)

08:18 **OUTCOMES OF REVERSE TOTAL SHOULDER ARTHROPLASTY IN PATIENTS AGED 50 AND YOUNGER**

» [Dr. Stephen Weber](#), Dr. Piotr Lukasiewicz, Dr. Sarah Goldfarb, Dr. Laurence Okeke, Dr. Henry Fox, Dr. Necati Bahadir Eravsar, Dr. James Padley, Dr. Edward McFarland

08:21 **COMPLEX FRACTURES OF THE DISTAL HUMERUS TREATED WITH ELBOW HEMIARTHROPLASTY: SHORT-MEDIUM-TERM RESULTS**

» [Dr. Claudio Ascani](#), Dr. Marco Scacchi, Dr. Mauro De Cupis, Dr. Daniele Passaretti

08:00 **Short Talks: KNEE SURGICAL TECHNIQUES 1**

Room 4

Chaired by: Prof. Justin Cobb

08:00 **Negative Influence of Joint Line Change on Long-term Outcomes and Survival of Unicompartamental Knee Arthroplasty**

» Prof. Hong Yeol Yang, Prof. Jong Keun Seon, [Prof. Sungju Kang](#), Prof. Jong Eun Kim

08:03 **Migration of cementless tibial baseplates does not appear to be related to bone mineral density**

» [Dr. Fernando Quevedo](#), Dr. Matthew Teeter, Mr. Joseph Lipman, Dr. Peter Sculco, Dr. Karlos Zepeda, Ms. Tsion Yared, Ms. Himani Kolli, Dr. Cynthia Kahlenberg, Dr. Eytan Debbi, Dr. Tim Wright, Dr. Jonathan Vigdorchik, Dr. David Mayman

08:06 **TWO DOUBLE ENDED PLASTIC UNI KNEE SPACERS ARE AN EASY WAY OF GETTING PERFECT BALANCE IN FLEXION AND EXTENSION FOR TKA. NO ROBOT NECESSARY.**

» [Prof. Derek McMinn](#), Mr. Roger Ashton, Mr. Andy McMinn, Ms. Hena Ziaee

08:09 **THE EFFECT OF ALIGNMENT VARIABILITY ON THE PRIMARY FIXATION OF CEMENTLESS FEMORAL TKA**

» [Ms. Verena Helgers](#), Dr. Periklis Tzanetis, Dr. Thom Bitter, Dr. Adam Briscoe, Prof. Nico Verdonschot, Dr. Dennis Janssen

08:12 **FEMORAL CARTILAGE VARIABILITY AFFECTS ACCURACY OF KINEMATIC ALIGNMENT AND IMAGELESS NAVIGATION IN TOTAL KNEE ARTHROPLASTY A PROSPECTIVE STUDY FROM THE UCBM KNEE STUDY GROUP**

» Dr. Pietro Gregori, Dr. Edoardo Franceschetti, [Dr. Giancarlo Giurazza](#), Dr. Stefano Campi, Dr. Andrea Tanzilli, Dr. Giovanni Perricone, Prof. Rocco Papalia

08:15 **CHANGES IN KNEE BALANCE AFTER TIBIAL RESECTION IN TOTAL KNEE ARTHROPLASTY**

» [Dr. Chadd Clary](#), Dr. Clare Fitzpatrick, Dr. Casey Myers, Dr. Paul Rullkoetter, Dr. Patrick Courtis, Mr. Adam Ryals, Dr. Ian Leslie, Dr. Mark Clatworthy

08:18 **Medial Pivot Total Knee Arthroplasty Following Kinematic Alignment from a Gait Analysis Perspective: An Umbrella Review**

» [Dr. Guido Bocchino](#), Prof. PIER FRANCESCO INDELLI, Dr. Giuseppe Aloisi, Dr. Fjorela Qordja, Dr. Bruno Violante, Prof. Pawel Skowronek, Prof. Marko Ostojic



Continued from **Saturday, 20 September**

- 08:21 **EFFECT OF CEMENTING TIME AND VISCOCITY ON THE INTERFACIAL ADHESION STRENGTH OF PMMA CEMENT TO PEEK-OPTIMA(TM)**
» Dr. Jonathan Thompson, Prof. Ludger Gerdesmeyer, Dr. Hemant Wakankar, Dr. Anna Fyfe, Dr. Adam Briscoe
- 08:00 **Short Talks: NAVIGATION-assisted HIP SURGERY**
Ellisse Room 5
Chaired by: Dr. Alessandro Calistri
- 08:00 **Impact of Center of Rotation Changes on Patient-Reported Outcome Measures in Total Hip Arthroplasty**
» Dr. Farouk Khury, Ms. Mallory Ehlers, Mr. Benjamin Padon, Dr. Anzar Sarfraz, Ms. Saloni Haruray, Ms. Catherine Di Gangi, Dr. Morteza Meftah, Dr. Vinay Aggarwal, Dr. Ran Schwarzkopf
- 08:03 **Assessment of impingement risk during activities of daily living following navigated and conventional total hip arthroplasty**
» Shahnaz Taleb, Dr. Jordan Broberg, Dr. James Howard, Dr. Brent Lanting, Dr. Matthew Teeter
- 08:06 **VALIDATION OF NAVIGATED REAMING AND REGISTRATION ACCURACY IN HANDHELD CT-BASED HIP ARTHROPLASTY NAVIGATION**
» Mr. Casimir Schwank, Dr. Dharmpal Vansadia, Dr. Stephen Raterman
- 08:09 **Postoperative CT Evaluation of Pelvic Reference Pins in Computer Assisted Total Hip Arthroplasty**
» Dr. Tomoki Mae, Dr. Yuki Maeda, Dr. Wataru Ando, Dr. Takeshi Ogawa, Dr. RYO ORITO, Dr. Satoshi Sasaki, Prof. Nobuhiko Sugano
- 08:12 **Outcomes of Robotic Direct Anterior THA In Patients High Risk For Instability: A Propensity-Matched 2-Year Study**
» Dr. Roger Quesada-Jimenez, Mr. Absolon Reyes-Cordova, Ms. Dharma Patel, Dr. Ady Kahana-Rojkind, Dr. Benjamin Domb

- 08:15 **EVALUATING THE CENTER OF THE FEMORAL HEAD IN RELATION TO THE GREATER TROCHANTER UTILIZING 3D IMAGING**
» Dr. Spencer Smith, Dr. Alex Sullivan, Dr. Stephen Raterman, Dr. Josué Layuno, Dr. Peter Simon, Dr. Thomas Bernasek, Dr. Michael Miranda
- 08:30 **Robotics in TKA**
Room 1 & 2
Chaired by: Prof. Mihalko William and Dr. Alessandro Todesca
- 08:30 **Cutting edge technology in arthroplasty: use of robots in TKA, added value in better outcomes?**
» Dr. Alessandro Todesca
- 08:36 **Impact of robotic assistance on implant selection in Total Knee Arthroplasty**
» Dr. Andreas Fontalis, Dr. Zaid Yasen, Mr. Warran Wignadasan, Prof. FARES HADDAD
- 08:42 **VARIABILITY OF SURGEON ALIGNMENT PHILOSOPHIES IN THE UNITED STATES FOR ROBOTIC ASSISTED TOTAL KNEE ARTHROPLASTY**
» Mr. Adam Henderson, Dr. John Dundon, Dr. Peter Sculco
- 08:48 **Does Use of Cruciate-Retaining Implants Change with Adoption of Robotic Assistance in Total Knee Arthroplasty?**
» Ms. Saloni Haruray, Ms. Catherine Di Gangi, Mr. Aditya Jain, Dr. Patrick Meere, Dr. Morteza Meftah, Dr. Matthew Hepinstall
- 08:54 **PRE-RESECTION AND POST-IMPLANTATION MEDIOLATERAL GAP PHENOTYPING DURING ROBOTIC TOTAL KNEE ARTHROPLASTY**
» Dr. Theodor Di Pauli von Treuheim, Ms. Catherine Di Gangi, Ms. Saloni Haruray, Dr. Patrick Meere, Dr. Matthew Hepinstall, Dr. Morteza Meftah

Continued from **Saturday, 20 September**

09:00 **Influence of Preoperative Alignment Phenotype and Correctability on Alignment Variability and Outcomes in Robotic-Assisted Total Knee Arthroplasty 4o**

» Dr. Farouk Khury, [Dr. Morteza Meftah](#), Dr. Theodor Di Pauli von Treuheim, Ms. Catherine Di Gangi, Ms. Saloni Haruray, Dr. Patrick Meere, Dr. Matthew Hepinstall

09:06 **EXTENSOR MECHANISM IMPACT ON FLEXION, BALANCE AND FEMORAL ROTATION IN ROBOT ASSISTED TKA**

» Dr. Miguel Jaramillo, Dr. Alexander Crowley, Dr. Christopher Marshall, [Dr. Willard Moore](#)

08:30 **New technologies and materials for shoulder replacement**
Room 3

Chaired by: Jae Chul YOO

08:30 **THE EFFECT OF GEOMETRIC DESIGN ON INITIAL STABILITY OF STEMLESS SHOULDER IMPLANTS**

» [Mr. Kyle Snethen](#), Mrs. Christine Mueri, Mr. Yang Son, Mr. Raymond Parisi, Dr. Thomas Duquin

08:36 **Partial Glenoid Arthroplasty as a Novel Alternative to Latarjet: Short-Term Radiologic Outcomes for Shoulder Instability with Substantial Glenoid Bone Loss**

» [Dr. Euihwan Cho](#), Prof. Sae Hoon Kim

08:42 **COMPARISON OF VOLUMETRIC POLYETHYLENE WEAR RATES ACROSS REVERSE TOTAL SHOULDER ARTHROPLASTY DESIGNS**

» [Mr. Gabriel Landi](#), Mr. Dave Schroeder, Dr. John Bell, Mrs. Kori Jevsevar, Dr. Daniel Austin, Prof. Douglas Van Citters

08:48 **STRESS SHIELDING INFLUENCES SHOULDER FUNCTION AFTER REVERSE SHOULDER ARTHROPLASTY USING A SHORT STEM AT MINIMUM 2-YEARS FOLLOW UP AND CAN BE PREDICTED USING A PRE-OPERATIVE PLANNING SOFTWARE: A RETROSPECTIVE COHORT STUDY**

» Dr. Pietro Gregori, Dr. Edoardo Franceschetti, [Dr. Giovanni Perricone](#), Dr. Giancarlo Giurazza, Dr. Michele Paciotti, Prof. Umile Giuseppe Longo, Prof. Rocco Papalia

08:54 **USE OF VERASENSE SENSOR IN NAVIGATED REVERSE SHOULDER ARTHROPLASTY: A PRELIMINARY STUDY ON 22 PATIENTS**

» Dr. Milena Morselli, Dr. Chiara Temporalì, [Prof. Luigi Tarallo](#)

09:00 **Computer-assisted navigation and pre-operative planning software in reverse total shoulder arthroplasty: a virtual battle between surgeons.**

» Dr. Susanna Pagnotta, [Prof. Andrea Redler](#), Dr. Alessandro Maggiori, Dr. Natale Criseo, Dr. Gianluca Fedeli, Dr. Orietta Picconi, Prof. Nicola Maffulli, Prof. Angelo De Carli

09:06 **LOW TO SEVERE OXIDATION IN RETRIEVED NEVER-IRRADIATED AND CONVENTIONAL GAMMA-STERILIZED UHMWPE SHOULDER BEARINGS**

» Dr. Andrii Murdza, Mr. Dave Schroeder, Mrs. Kori Jevsevar, Dr. John Bell, Dr. Rhett Hobgood, [Prof. Douglas Van Citters](#)

08:30 **Clinical Results of hip arthroplasty: Hip resurfacing vs Total Hip Arthroplasty**

Room 4

Chaired by: Prof. Bill Walter and Thomas Gross

08:30 **Learning Curve Hip Resurfacing arthroplasty and related outcome**

» [Dr. Alessandro Calistri](#)

08:36 **Gait analysis: hip resurfacing compared to THA**

» [Prof. Justin Cobb](#)

08:42 **High impact activity: Hip Resurfacing vs Total hip Arthroplasty**

» [Prof. Edwin Su](#)



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- 08:48 **Metal-on-Metal Hip Resurfacing survivorship results from a high volume centre**
» [Dr. Manel Ribas](#)
- 08:54 **The technology behind BIOLOX®delta CoC resurfacing: FAQs**
» [Mr. Alan Porporati](#)
- 09:00 **Hip resurfacing as an alternative to THA for very young patients (under 30 years old)**
» [Prof. Julien Girard](#)
- 09:06 **Novel Phenotypes Combining Baseline Function, Mental Health, and Physical Activity Predict One-Year Improvement After Total Hip Arthroplasty**
» [Dr. Shujaa Khan](#), [Dr. Roberta Redfern](#), [Dr. Mike Anderson](#), [Dr. Nicolas Piuze](#)
- 09:12 **Surgical Stress and Physiological Reserve Interact to Drive Postoperative Outcomes After Arthroplasty: A Data-Driven Framework for Risk Stratification**
» [Mr. Kole Joachim](#), [Mr. Adrian Lin](#), [Dr. Brandon Gettleman](#), [Dr. Christopher Hamad](#), [Ms. Amanda Perrotta](#), [Ms. Sumin Jeong](#), [Dr. Alexandra Stavrakis](#), [Dr. Alexander Christ](#)
- 09:30 **Cutting edge technologically assisted orthopaedic surgery: Navigation, Augmented Reality, Robotics**
Room 1 & 2
Chaired by: [Prof. Fabio Catani](#) and [Dr. ARUN MULLAJI](#)
- 09:30 **CT Based Robotic Arm Assisted Arthroplasty: The Value Proposition**
» [Prof. Fares Haddad](#)
- 09:36 **Use of robotics in severe deformity cases**
» [Mr. Francesco Benazzo](#)

- 09:42 **Robotic TKA for severe varus knees**
» [Prof. Yasushi Oshima](#)
- 09:48 **Use of AI planning for TKA or automated registration with a scanner**
» [Dr. Morteza Meftah](#)
- 09:54 **INTEGRATION OF A PIEZOELECTRIC ELEMENT INTO AN UNCEMENTED HIP STEM TO SUPPLY ENERGY FOR SMART IMPLANT FUNCTIONS**
» [Ms. Franziska Geiger](#), [Ms. Pia Kloubert](#), [Prof. Rainer Bader](#), [Dr. Daniel Kluess](#)
- 10:00 **Comparison between the Mako robotic arm - assisted system and portable navigation system in total hip arthroplasty for osteoarthritis secondary to developmental dysplasia of the hip**
» [Dr. Masakazu Okamoto](#), [Dr. Yoshinobu Uchihara](#), [Dr. Kenichiro Saito](#), [Dr. Yudai Yano](#)
- 10:06 **ACCURACY OF COMPONENT PLACEMENT IN TOTAL HIP ARTHROPLASTY USING THE NEXTAR HIP AUGMENTED REALITY SYSTEM: A CADAVERIC VALIDATION STUDY**
» [Mr. Daniele Ascani](#), [Mr. Filippo Cinotti](#), [Mr. Massimiliano Bernardoni](#)
- 10:12 **FINITE ELEMENT SIMULATION FOR THE DESIGN OF SMART PIEZOELECTRIC FORCE SENSING TOTAL KNEE REPLACEMENT**
» [Mr. Brandon Hines](#), [Dr. Ryan Willing](#), [Dr. Steven Anton](#)
- 09:30 **Use of technology for Upper extremity arthroplasty Shoulder/Elbow**
Room 3
Chaired by: [Dr. Claudio Ascani](#) and [Prof. Maristella Saccomanno](#)
- 09:30 **Elbow arthroplasty: where are we now?**
» [Dr. Alessandro Greco](#)
- 09:36 **CURRENT CONCEPTS IN ELBOW ARTHROPLASTY**
» [Prof. Claudio Ascani](#)



Continued from **Saturday, 20 September**

- 09:42 **CAOS in Shoulder Arthroplasty**
» [Dr. Maristella Saccomanno](#)
- 09:48 **QUANTITATIVE MOTION ANALYSIS OF TOTAL ELBOW ARTHROPLASTY WITH A THREE-DIMENSIONAL OPTOELECTRONIC SYSTEM: RESULTS OF 44 PATIENTS AT MEDIUM TERM FOLLOW-UP**
» [Dr. Andrea Amura](#), Dr. Francesco Cervone, Dr. Sebastien Prigent, Prof. Giuseppe Giannicola, Prof. Massimiliano Mangone, Dr. Francesco Agostini
- 09:54 **CLINICAL RESULTS OF PRESS-FIT RADIAL HEAD ARTHROPLASTY IN ACUTE FRACTURES AND POST-TRAUMATIC CONDITIONS: MID TO LONG-TERM COMPARATIVE STUDY ON 97 PATIENTS.**
» [Dr. Andrea Amura](#), Prof. Giuseppe Giannicola, Dr. Pasquale Sessa, Dr. Sebastien Prigent
- 10:00 **ANGULAR CORRELATION BETWEEN SUPRASPINATUS FOSSA LINE AND CORRECTED FRIEDMAN LINE: EVALUATION OF ITS IMPACT ON IMPLANT POSITION PLANNING**
» [Mr. Axel Pavan](#), Mr. Cristiano Pizzamiglio, Mr. Andrea Fattori, Mr. Michele Pressacco
- 10:06 **Intelligent Prediction of Anatomical and Reverse Shoulder Implants from CT-Derived 3D Models**
» Prof. Luca Marsilio, Mr. Andrea Moglia, Mr. Luca Mainardi, [Dr. Alfonso Manzotti](#), Prof. Pietro Cerveri
- 10:12 **HARNESSING MACHINE LEARNING TO FORECAST OUTCOMES IN SHOULDER ARTHROPLASTY**
» Dr. Hadi Seyed Hosseini, [Dr. Philippe Favre](#)
- 09:30 **Functional recovery after TKA**
Room 4
Chaired by: Dr. Petra Heesterbeek and Dr. Nicolas Piuze

- 09:30 **Establishing Minimal Clinically Important Differences and Substantial Clinical Benefit Thresholds for Various Objective Gait Metrics after Total Knee Arthroplasty**
» Dr. Roberta Redfern, Dr. Shujaa Khan, Dr. Michael Archibeck, Dr. Christopher Peters, Dr. Mike Anderson, [Dr. Nicolas Piuze](#)
- 09:36 **THE EFFECT OF ALIGNMENT ON JOINT MECHANICS AND IMPLANT FIXATION DURING GAIT: COMPUTATIONAL ANALYSIS OF 10 CR-TKA UNCEMENTED PATIENTS – SHORT TERM RESULTS AT 6 WEEKS**
» [Dr. Remy Winter](#), Dr. Peter Sculco, Dr. Jonathan Vigdorchik, Dr. Cynthia Kahlenberg, Dr. David Mayman, Dr. Eytan Debbi, Mr. Joseph Lipman, Dr. Tim Wright, Dr. Fernando Quevedo
- 09:42 **POSTERIOR CONDYLAR ROLLBACK IS MORE IMPORTANT THAN AXIAL ROTATION TO ACHIEVE HIGH WEIGHT-BEARING FLEXION**
» [Dr. Michael LaCour](#), Dr. Petra Heesterbeek, Ms. Tamara Droogsma, Mr. Garrett Dessinger, Dr. Gijs van Hellemond, Dr. Steven Haas, Dr. Richard Komistek
- 09:48 **PREOPERATIVE DYNAMIC ALIGNMENT BEHAVIOR IS LINKED TO ROBOTIC INTRAOPERATIVE LAXITIES IN TOTAL KNEE ARTHROPLASTY**
» Prof. Sebastien Lustig, Dr. Julien Erard, [Mr. Alix CAGNIN](#), Dr. Jean Baltzer, Ms. Laurence Chèze, Ms. Nicola Hagemeister, Mr. Alex Fuentes, Dr. Cécile Batailler
- 09:54 **ASYMMETRIC GAPS IN MID-FLEXION AND IMBALANCED GAPS ARE ASSOCIATED WITH DYNAMIC VARUS-VALGUS DURING GAIT AFTER TOTAL KNEE ARTHROPLASTY**
» Dr. Pierre RANGER, Mr. Alix CAGNIN, Ms. Bianca MAROIS, Mr. Mohammad El Kazouiny, [Mr. Alex Fuentes](#)
- 10:00 **POSTOPERATIVE OUTCOME SCORES AFTER TKA ARE ASSOCIATED WITH CADENCE DURING GAIT AND MORE EFFICIENT CHAIR RISE**
» [Dr. Petra Heesterbeek](#), Dr. Michael LaCour, Ms. Tamara Droogsma, Mr. Garrett Dessinger, Dr. Richard Komistek, Dr. Gijs Van Hellemond



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10:06 **Restoring the Constitutional CPAK Phenotype Enhances Early Functional Recovery After Total Knee Arthroplasty: A Prospective In-Office Gait-Analysis Study**
» [Dr. Carmelo Burgio](#), Dr. Karlos Zepeda, Mr. Shrey Vachhani, Ms. Tsion Yared, Dr. Theofilos Karasavvidis, Mr. Richard Rivera, Dr. Seth Jerabek, Dr. David Mayman, Dr. Peter Sculco, Dr. Eytan Debbi, Dr. Jonathan Vigdorichik

09:30 **Short Talks: SHOULDER TECHNOLOGY & MATERIALS**

Ellisse Room 5

Chaired by: Dr. Vittorio Candela

09:30 **FACTORS INFLUENCING THE PRIMARY STABILITY OF STEMLESS HUMERAL IMPLANTS**
» Dr. Ingmar Fleps, Mr. Kyle Snethen, Mr. Charlie Parduhn, Mx. Alex Miranda, Mrs. Christine Mueri, Dr. Ghislain Maquer, Dr. Taku Hatta, Dr. Jeffrey Bischoff, [Dr. Philippe Favre](#)

09:33 **WHAT ANATOMICAL AND SURGICAL PARAMETERS INCREASE ELEVATION RANGE OF MOTION IN REVERSE TSA? A SIMULATION STUDY**

» [Dr. Alessandro Navacchia](#), Dr. Bertrand Kaper, Dr. Michael O'Brien, Dr. Michael Freehill, Dr. Christopher Klifto

09:36 **PATIENT SPECIFIC SURFACE RECONSTRUCTIONS OF HEALTHY ANATOMY USING PRINCIPAL COMPONENT ANALYSIS**

» [Dr. Bryan Kirking](#)

09:39 **Roughened, Roughened and Third-Body Particles, Clean Wear Conditions applied to a Reverse Total Shoulder Replacement - Implications on CoCr and Polyethylene Wear Rates**

» [Mr. Patrick Zaffarani](#), Mrs. Chiara Celso, Mr. Emanuele Buttazoni, Mr. Michele Pressacco

09:42 **WEAR TESTING OF HIGHLY CROSS-LINKED ANTIOXIDANT POLYETHYLENE FOR REVERSE TOTAL SHOULDER PROSTHESIS**

» [Ms. Alexi Saliba](#), Dr. Josie Elwell, Mr. Jared Eckert, Dr. Zachary Bryan

09:45 **GLENOID ARTICULAR CARTILAGE WEAR IN HEMI-ARTHROPLASTY**
» [Mr. Maximilian Uhler](#), Dr. Solvig Diederichs, Prof. J. Philippe Kretzer

09:48 **EVALUATION OF NATIVE GLENOID ANGLES THROUGH TWO PREOPERATIVE PLANNING SOFTWARE IN REVERSE SHOULDER ARTHROPLASTY**

» [Dr. Chiara Temporalj](#), Dr. Giulia Caldarera, Dr. Milena Morselli, Prof. Luigi Tarallo

09:51 **MEDIALIZED VS. LATERALIZED RTSA: CORACOID IMPINGEMENT DURING ADDUCTION**

» [Dr. Renato Miyadahira](#), Dr. Arden Shen, Dr. Matheus Vilela, Dr. Christopher Knowlton, Dr. Gregory Nicholson, Dr. Grant Garrigues, Dr. Jonathan Gustafson

09:54 **Real-time Self-supervised Ultrasound Image Enhancement Using Test-Time Adaptation for Sophisticated Rotator Cuff Tear Diagnosis**

» Prof. Haeyun Lee, Prof. Kyungsu Lee, [Prof. Jun-Young Kim](#)

09:57 **REVERSE SHOULDER ARTHROPLASTY IMPLANT DESIGN AFFECTS CONJOINT TENDON IMPINGEMENT**

» [Mr. Cole Fleet](#), Dr. Patrick Carroll, Dr. James Johnson, Dr. George Athwal

10:00 **THE DEGREE OF KYPHOSIS INFLUENCES CLINICAL OUTCOMES AND JOINT ROM AFTER REVERSE SHOULDER ARTHROPLASTY**

» [Dr. Mauro La Bruna](#), Dr. Pietro Gregori, Dr. Edoardo Franceschetti, Dr. Michele Paciotti, Dr. Andrea Tanzilli, Dr. Chiara Capperucci, Dr. Fabrizio Russo, Prof. Umile Giuseppe Longo, Prof. Rocco Papalia

10:03 **PYROCARBON VS. METAL HEMIARTHROPLASTY FOR THE SHOULDER: A SYSTEMATIC REVIEW OF PAIN, SURVIVAL RATE, REVISION CAUSES, AND COMPLICATIONS**

» [Dr. Renato Miyadahira](#), Mr. Robin Pelia, Dr. Matheus Vilela, Dr. Robin Pourzal, Dr. Jonathan Gustafson



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- 10:06 **PREOP VS POSTOP RTSA: ELETROMYOGRAPHIC DELTOID ACTIVATION IN SCAPTION AND FORWARD FLEXION**
» [Dr. Jonathan Gustafson](#), Dr. Renato Miyadahira, Dr. Arden Shen, Dr. Matheus Vilela, Dr. Christopher Knowlton, Ms. Divya Sharma, Dr. Gregory Nicholson, Dr. Grant Garrigues
- 10:09 **Comparison of Costs and Healthcare Utilizations in the Year Prior to Reverse Shoulder Arthroplasty Among Patients Who Had and Did Not Have Depression**
» [Dr. Adam Gordon](#), Mr. Jake Schwartz, Dr. Ramin Sadeghpour, Dr. Jack Choueka
- 10:30 **Coffee/Tea Break**
Exhibitors' Area
- 11:00 **Personalized Knee Arthroplasty**
Room 1 & 2
Chaired by: Dr. Morteza Meftah and Prof. Francesco Benazzo
- 11:00 **Personalized Knee arthroplasty : how robotic technology and 3D planning have changed alignment standards**
» [Prof. Sebastien Lustig](#)
- 11:06 **Personalized Knee Arthroplasty - better in vivo kinematics and clinical results?**
» [Prof. Fabio Catani](#)
- 11:12 **Cartilage Thickness Varies by Compartment and Alignment Type: Implications for Personalized TKA Planning**
» [Dr. Morteza Meftah](#)
- 11:18 **The True Nature of Hip-Knee-Ankle Axis is Dynamic: Insights from Robot-Assisted Intraoperative Analysis During Total Knee Arthroplasty**
» Dr. Andrea Salvi, Dr. Guido Bocchino, Dr. Fjorela Qordja, Dr. Luca Andriollo, Prof. Stefano Marco Paolo Rossi, Prof. Francesco Benazzo, Prof. PIER FRANCESCO INDELLI

- 11:24 **DOES KINEMATICALLY ALIGNED TKA ROBUSTLY RESTORE NATIVE KNEE KINEMATICS?**
» [Dr. Chadd Clary](#), Dr. Clare Fitzpatrick, Dr. Casey Myers, Dr. Paul Rullkoetter, Dr. Patrick Courtis, Mr. Adam Ryals, Dr. Ian Leslie, Dr. Mark Clatworthy
- 11:30 **Cartilage Thickness Varies by Compartment and Alignment Type: Implications for Personalized TKA Planning**
» Dr. Grant Duvall, Ms. Catherine Di Gangi, [Ms. Saloni Haruray](#), Dr. David Novikov, Dr. Matthew Hepinstall, Dr. Morteza Meftah
- 11:36 **KINEMATIC ALIGNMENT PRESERVES ANKLE CORONAL ALIGNMENT BETTER THAN MECHANICAL TKA**
» [Dr. Marco Donantoni](#), Dr. Edoardo Franceschetti, Dr. Andrea Tanzilli, Dr. Stefano Campi, Prof. Andrea Marinozzi, Prof. Rocco Papalia
- 11:42 **Evaluating post operative clinical outcomes based on elongation patterns during TKA**
» [Dr. Masataka Ota](#), Dr. Atsushi Sato, Dr. Takayuki Koya, Dr. Misako Takizawa, Dr. Reo Nagasaka, Dr. Toshiharu Miyazawa, Dr. Marika Mukunoki, Dr. Kanako Izukashi, Dr. Jun Oike, Dr. Takayuki Okumo, Dr. Saki Yagura, Prof. Koji Kanzaki
- 11:00 **Debate -**
Debate: The ideal RSA design: does a gold standard exist?
Room 3
Chaired by: Prof. Giuseppe Porcellini
- 11:00 **Total Hip Arthroplasty: unresolved issues**
Room 4
Chaired by: Prof. Francesco Falez and Dr. Manel Ribas
- 11:00 **Forum Hip Arthroplasty: Are ceramic-on-ceramic bearings the best option? Results from the French registry**
» [Dr. Jean-Alain Epinette](#)
- 11:06 **Total Hip Arthroplasty: Are there still reasons to use a collared stem?**
» [Dr. Emilio Romanini](#)



Continued from **Saturday, 20 September**

- 11:12 **Enabling technologies for Direct Anterior Approach in total hip arthroplasty**
» [Prof. Bill Walter](#)
- 11:18 **Short stems for THA: Consolidate the choice**
» [Prof. Francesco Falez](#)
- 11:24 **Total Hip Arthroplasty preferred approach: posterolateral**
» [Prof. Edwin Su](#)
- 11:30 **Modular necks: where are we now?**
» [Dr. Manel Ribas](#)
- 11:36 **PREDICTING INDIVIDUALIZED HIP JOINT CONTACT RESPONSES TO ACETABULAR REORIENTATION USING KINEMATICALLY-DRIVEN CONTACT MODELING**
» Dr. Nicholas J. Dunbar, Mr. James J. McGinley, Dr. Alfred A. Mansour, [Dr. Philip C. Noble](#)
- 11:42 **FACTORS THAT INFLUENCE RESOURCE UTILIZATION FOLLOWING PRIMARY LOWER EXTREMITY TOTAL JOINT ARTHROPLASTY**
» [Dr. Willard Moore](#), Dr. George Chimento, Dr. Bhumit Desai, Dr. Miguel Jaramillo, Mr. Cruz Velasco-Gonzalez, Dr. Jimmy Daher
- 11:00 **Private Meeting**
Ellisse Room 5
- 12:00 **Leadership in Orthopaedics**
Room 1 & 2
Chaired by: Prof. Stefano Gumina
- 12:00 **Lectio Magistralis: Leadership in Orthopaedics**
» [Prof. Gwen Sys](#)

- 12:00 **Short Talk: KNEE/HIP Materials, tribology, wear and retrievals**
Ellisse Room 5
Chaired by: Prof. Clare Rimnac
- 12:00 **Quantification of Polyethylene Wear in Fixed-bearing Unicompartmental Knee Arthroplasty: Insights from Retrieval Analysis**
» [Dr. Moreica Pabbruwe](#), Dr. Rohan Bhalekar, Mr. Stephen Wells, Mr. Yash Borikar, Dr. Alan Kop, Dr. Raghavendra Sidaginamale, Dr. David Langton
- 12:03 **INFLAMMATORY RESPONSES TO FINE WEAR PARTICLES FROM CONVENTIONAL AND HIGHLY CROSSLINKED POLYETHYLENE INSERTS IN TOTAL KNEE ARTHROPLASTY**
» [Dr. Michael Godoy](#), Dr. Songyun Liu, Mr. Devin Asher, Dr. Joshua Jacobs, Dr. Bailey Terhune, Dr. Hannah Lundberg, Dr. Deborah J. Hall, Dr. Robin Pourzal
- 12:06 **OXIDATION IN RETRIEVED CONVENTIONAL GAMMA-STERILIZED UHMWPE KNEE DEVICES**
» Dr. Andrii Murdza, [Mr. Dave Schroeder](#), Mrs. Kori Jevsevar, Dr. Alexander Orem, Prof. Douglas Van Citters
- 12:09 **ASSOCIATION BETWEEN PATELLAR SURFACE WEAR AND CEMENT-BONE INTERFACE QUALITY ON MAGNETIC RESONANCE IMAGING IN REVISED TOTAL KNEE ARTHROPLASTY**
» Ms. Sara Sacher, Dr. Richard Hwang, [Dr. Aarti Shenoy](#), Dr. Hollis Potter, Dr. Tim Wright, Dr. Douglas Padgett
- 12:12 **SEX IS A FACTOR IN CROSSLINKED TIBIAL INSERT WEAR**
» [Mrs. Kori Jevsevar](#), Dr. David Jevsevar, Mrs. Barbara Currier, Dr. Alexander Orem, Prof. Douglas Van Citters
- 12:15 **EVALUATION OF DAMAGE IN TIBIAL INSERTS FROM TOTAL KNEE PROSTHESES WITH DIFFERENT CLINICAL USAGE TIMES**
» Ms. Amanda Petry, Mr. Enrico Fava, Dr. Patricia Ortega Cubillos, Dr. Gean Salmoria, Dr. Joao Matheus Guimaraes, Dr. Amanda Cavalcanti, [Prof. Carlos Rodrigo de Mello Roesler](#)



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- 12:18 **CEMENT DEBONDING IN MODERN POSTERIOR-STABILIZED TOTAL KNEE FEMORAL COMPONENT FROM A SINGLE MANUFACTURER MIGHT BE ASSOCIATED WITH SURFACE FINISH CHANGES**
» [Dr. Aarti Shenoy](#), Dr. Katherine Mallett, Ms. Sara Sacher, Dr. Geoffrey Westrich, Dr. Tim Wright
- 12:21 **METAL ION RELEASE AND TIBIAL COMPONENT MIGRATION OF A COATED IMPLANT DESIGN ONE-YEAR POST-OPERATION**
» [Ms. Rebecca Hext](#), Dr. James Howard, Dr. Brent Lanting, Dr. Edward Vasarhelyi, Dr. Matthew Teeter
- 12:24 **OPTIMISING RADIOGRAPHIC VISIBILITY AND WEAR EVALUATION OF TOTAL KNEE ARTHROPLASTY INLAIS USING RADIOPAQUE WEAR MARKERS**
» [Ms. Crystal Kayaro Emonde](#), Mr. Max-Enno Eggers, Mr. Klaas Maximilian Heide, Dr. Florian Pape, Prof. Max Marian, Prof. Christof Hurschler, Prof. Max Ettinger, Prof. Denkena Berend
- 12:27 **A DEVICE FOR RECREATING SURGEON IMPACT DYNAMICS**
» [Mr. Harrison Frende](#), Mr. Nathan Pyle
- 12:30 **EFFECT OF DIFFERENT CONTAMINANTS ON TENSILE ADHESION STRENGTH OF PMMA TO GRIT-BLASTED Ti6AL4V**
» [Ms. Anna Sullivan](#), Ms. Kayleen Lopez, Mr. Dermott McHugh, Mr. Adam Sotkin, Mr. Mike Rizk, Dr. Yashar Behnam, Ms. Georgia Murray
- 12:33 **Different Materials Used in Contemporary Femoral Head Prosthesis Impact Growth Of Biofilm**
» [Dr. suenghwan jo](#), Mr. Yonggyun Moon, Mr. Jae-Young Hong
- 12:36 **INNOVATIVE SOLUTIONS: ADDITIVE MANUFACTURING FOR ENHANCED DESIGN AND PRODUCTION OF STAINLESS STEEL SURGICAL INSTRUMENTS**
» [Mr. Valerio Luchin](#), Mr. Stefano Rappo, Mr. Mukesh Kumar

- 12:39 **EFFECT OF PRINTING PARAMETERS AND HEAT-TREATMENT ON TENSILE PROPERTIES OF 3D-PRINTED PEEK FOR BIOMEDICAL APPLICATIONS**
» [Dr. Ahmad Serjouei](#), Mr. Taha Kabbara, Mr. Samuel Partis, Dr. Abdellatif Abdelgaied
- 12:42 **WOULD UHMWPE OXIDATION THROUGH ACCELERATED AGEING SHOW HIGHER FRICTION, AND WOULD VITAMIN-E MITIGATE THIS?**
» [Dr. Hani Haider](#), Mr. Alex Eischeid, Ms. Rachel Ma, Mr. Joel Weisenburger, Dr. Kevin Garvin
- 12:15 **The Giants Questions to Themselves (Hip - Knee - Shoulder)**
Room 1 & 2
Chaired by: Prof. Stefano Gumina
- 13:00 **Short Talks: TOTAL HIP SURGICAL TECHNIQUES**
Room 3
Chaired by: John Hollingdale
- 13:00 **A new mininvasive approach in hip arthroplasty. The medial-inguinal approach**
» [Dr. Luca Lucente](#)
- 13:03 **Longitudinal assessment of impingement risk following total hip arthroplasty through the direct anterior approach**
» [Shahnaz Taleb](#), Dr. Jordan Broberg, Mrs. Jennifer Polus, Dr. James Howard, Dr. Brent Lanting, Dr. Matthew Teeter
- 13:06 **5-Year Implant Survivorship and Implant Complications Among Patients undergoing Primary THA for Osteonecrosis Versus Osteoarthritis**
» [Dr. Adam Gordon](#), Mr. Patrick Nian, Mr. Joydeep Baidya, Dr. Michael Mont

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- 13:09 **COMPARATIVE STUDY OF SURGICAL APPROACHES IN TOTAL HIP ARTHROPLASTY FOR OSTEOARTHRITIS SECONDARY TO DEVELOPMENTAL DYSPLASIA OF THE HIP WITH A SHORT ANATOMICAL STEM**
» Dr. Takeshi Ogawa, Dr. RYO ORITO, Dr. Shoya Abe, Dr. Ema Nakahara, Dr. Tsuyoshi Koyama, Dr. Takayuki Tsuda, Prof. Seiji Okada, Prof. Nobuhiko Sugano, Dr. Wataru Ando
- 13:12 **DISLOCATION AFTER PRIMARY TOTAL HIP ARTHROPLASTY USING DUAL MOBILITY CUP: IMPORTANCE OF ACCURATE IMPLANT ALIGNMENT**
» Dr. Wataru Ando, Dr. Toshihiko Tanimoto, Dr. Takeshi Ogawa, Dr. RYO ORITO, Dr. Ema Nakahara, Dr. Shoya Abe, Dr. Tsuyoshi Koyama, Dr. Takayuki Tsuda, Prof. Seiji Okada, Prof. Nobuhiko Sugano, Dr. Kenji Ohzono
- 13:15 **Femoral Fractures During Stem Insertion in Total Hip Arthroplasty via the Anterior Lateral Supine Approach: A Single-Surgeon Retrospective Analysis of Incidence, Management, and Functional Outcomes**
» Dr. TAKAAKI FUJISHIRO, Dr. Takafumi Hiranaka, Dr. Shinya Hayashi, Prof. Ryosuke Kuroda
- 13:18 **Reduced Long-term Periprosthetic Fracture Rates with Composite Beam Stems vs. Polished Tapered Stems in cemented Hip Arthroplasty: A 10-year observational study**
» Dr. Martin Magnéli, Dr. Michael Axenhus, Dr. Viktor Schmidt, Prof. Olof Sköldenberg
- 13:21 **Comparing THA Anterior and Posterior Approaches for Gluteus Medius Repair: Outcomes at a Minimum 2-Year Follow-Up**
» Dr. Roger Quesada-Jimenez, Mr. Krishi Rana, Ms. Isabella Wallace, Dr. Ady Kahana-Rojkind, Dr. Benjamin Domb
- 13:24 **Fluoroscopically-Guided Pericapsular Nerve Group Block Combined with Local Infiltration Analgesia: Effective Pain Control for Total Hip Arthroplasty Through the Direct Anterior Approach**
» Dr. SEIYA ISHII, Dr. Osamu Muto, Dr. Yasuhiro Tominaga, Dr. Hisato Watanabe, Dr. Muneaki Ishijima
- 13:27 **Effect of Acetabular Labrum Injury and Repair on Dislocation Resistance in Hip Hemiarthroplasty: A Cadaveric Study**
» Dr. Kenichiro Saito, Dr. Yoshinobu Uchihara, Dr. Yudai Yano, Dr. Masakazu Okamoto
- 13:30 **A NOVEL METHOD FOR ESTIMATING FEMORAL ANTEVERSION IN TOTAL HIP ARTHROPLASTY VIA THE POSTEROLATERAL APPROACH: A COMPARISON WITH CONVENTIONAL VISUAL ASSESSMENT**
» Prof. Young-Ho Roh, Prof. Yong-Geun Park
- 13:33 **IMPACT OF MAXIMIZING FEMORAL HEAD IMPLANT SIZE ON HIP DISLOCATION IN PRIMARY TOTAL HIP ARTHROPLASTY**
» Mr. Eric Wang, Dr. Theodor Di Pauli von Treuheim, Ms. Catherine Di Gangi, Dr. Ran Schwarzkopf, Dr. Morteza Meftah, Dr. Matthew Hepinstall
- 13:36 **THE RESTORATION GAP REINFORCEMENT RING IN RECONSTRUCTION FOLLOWING INTRALESIONAL SURGERY FOR ACETABULAR METASTASES: INDICATIONS AND MID-TERM OUTCOMES**
» Dr. Simone Otera, Dr. Daphne Sorrentino, Dr. Giuseppe Francesco Papalia, Dr. Daniele De Meo, Dr. Carmine Zoccali, Prof. Stefano Gumina
- 13:39 **MID-TERM OUTCOMES OF REVISION TOTAL HIP ARTHROPLASTY WITH CEMENTATION OF A MONOBLOCK DUAL-MOBILITY BEARING CUP IN A POROUS REVISION ACETABULAR SHELL**
» Ms. Sophia Antonioli, Mr. Garrett Ruff, Ms. Catherine Di Gangi, Ms. Saloni Haruray, Dr. Morteza Meftah, Dr. Vinay Aggarwal, Dr. Joshua Rozell, Dr. Ran Schwarzkopf
- 13:42 **7-Fold Lower Dislocation In Direct Anterior Approach Versus Posterolateral Approach for Isolated Head-Liner Exchange Due To Polyethylene Wear**
» Dr. Pravjit Bhatti, Dr. Alex Anatone, Dr. Josef Jolissaint, Mr. Patrick Gallagher, Dr. Colin Neitzke, Dr. Eytan Debbi, Dr. Jose Rodriguez, Dr. Elizabeth Gausden



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13:00 DARE: Building bridges together: a participatory session on developing inclusive healthcare leadership

Ellisse Room 5

Chaired by: Dr. Petra Heesterbeek and Ebru Oral

Diversity and Leadership

» [Prof. Sietske Rozie](#)

13:05 Lunch Served in Exhibitors' Area

Exhibitors' Area

14:00 Use of Technology in Postoperative Rehabilitation

Room 1 & 2

Chaired by: ELENA SILVESTRI and Prof. Nobuhiko Sugano

14:00 Preoperative muscle assessment and postoperative function

» [Mr. Nobuhiko Sugano](#)

14:06 Use of Technology in postop rehab of sports injuries

» [Prof. Andrea Redler](#)

14:12 Use of Technology in Postoperative Shoulder Rehabilitation: how to improve the clinical daily approach

» [Ms. Elena Silvestri](#)

14:18 INVESTIGATION OF INTERNATIONAL VARIATION IN THE RECOVERY OF OBJECTIVE GAIT METRICS FOLLOWING TOTAL JOINT ARTHROPLASTY

» [Dr. Karl Surmacz](#), Mr. Adam Henderson, Dr. Mike Anderson, Dr. Roberta Redfern, Dr. William Long

14:24 GAIT AND SYMPTOM DECLINE DURING THE WAIT FOR KNEE ARTHROPLASTY SURGERY

» [Ms. Stephanie Civiero](#), Dr. Annemarie Laudanski, Dr. Michael J. Dunbar, Dr. C. Glen Richardson, Dr. Jennifer Leighton, Dr. David Wilson, Dr. Janie Astephen Wilson

14:30 KNEE FLEXION MUSCLE STRENGTH CORRELATES WITH MODERATE DAILY PHYSICAL ACTIVITY IN END-STAGE KNEE OSTEOARTHRITIS: PREOPERATIVE EVALUATION USING A WEARABLE PHYSICAL ACTIVITY MONITOR

» [Dr. TOMOFUMI KINOSHITA](#), Dr. TATSUHIKO KUTSUNA, Dr. KUNIIHIKO WATAMORI, Dr. TAKASHI TSUDA, Dr. YUSUKE HORITA, Dr. DAISUKE URASHIMA, Dr. KAZUNORI HINO, Prof. MASAKI TAKAO

14:36 PREDICTING FUNCTIONAL RECOVERY FOLLOWING TOTAL KNEE ARTHROPLASTY USING GENERATIVE MACHINE LEARNING

» Dr. Huy Phan, Mrs. Alison Klika, Ms. Angelica Parra, Dr. Wael Barsoum, [Dr. Tom Harte](#)

14:42 RADIOLOGICAL AND CLINICAL EVALUATION OF 3D-PRINTED POROUS COLLARS IN RESECTION PROSTHESIS FOR HIP AND KNEE: PRELIMINARY DATA

» [Dr. Giuseppe Francesco Papalia](#), Dr. Nicola Salducca, Dr. Dante Dallari, Prof. Francesco Falez, Dr. Raimondo Piana, Prof. Roberto Biagini

14:00 Advanced Technology for shoulder surgery

Room 3

Chaired by: Prof. Raffaele Russo

14:00 How can robot improve your shoulder replacement outcomes minimizing complications?

» [Mr. Oliver Verborgt](#)

14:06 How to optimize implant positioning using navigation

» [Dr. Franceschi Francesco](#)

14:12 The future of 3D printing and personalized care in shoulder arthroplasty. A shoulder surgeon's perspective

» [Prof. Alessandro Castagna](#)

14:18 The future of 3D printing and personalized care in shoulder arthroplasty. An engineer's perspective

» [Mr. Michele Pressacco](#)

Continued from **Saturday, 20 September**

- 14:24 **Learning shoulder surgery using virtual reality: truth or myth?**
» [Prof. Sang-lin Shin](#)
- 14:00 **Causes and modes of failure in TKA**
Room 4
Chaired by: John Hollingdale and Gianluca Cinotti
- 14:00 **EFFECTS OF PATIENT DEMOGRAPHICS AND ACTIVITY ON EARLY FAILURE IN TOTAL KNEE ARTHROPLASTY**
» [Mr. Alfredo Pineda de la Ballina](#), Dr. Moreica Pabbruwe, Dr. Alan Kop, Dr. Amir Ghasemi
- 14:06 **EARLY TIBIAL LOOSENING IN A CONTEMPORARY TOTAL KNEE REPLACEMENT SYSTEM, THE ATTUNE KNEE**
» [Dr. Amir Ghasemi](#), Mr. Bastian Kreilmann, Mr. Alfredo Pineda de la Ballina, Dr. Alan Kop, Dr. Moreica Pabbruwe
- 14:12 **LOW BONE MINERAL DENSITY CORRELATES TO AN INCREASED RISK OF BONE FAILURE UNDER CEMENTLESS TKA TIBIAL BASEPLATES**
» Ms. Clarisse Zigan, Dr. Peter Sculco, Dr. Cynthia Kahlenberg, Mr. Joseph Lipman, Dr. Tim Wright, Dr. David Mayman, Dr. Jonathan Vigdorchik, Dr. Eytan Debbi, [Dr. Fernando Quevedo](#)
- 14:18 **Revision Total Knee Arthroplasty with Implant Agnostic, Joint Line Based, Gap-Balanced Technique**
» [Dr. Spencer Montgomery](#), Mr. James Sikes, Dr. Humberto Aparicio
- 14:24 **IS CORROSION AT THE MODULAR JUNCTION OF REVISION TOTAL KNEE REPLACEMENTS ACTUALLY A PROBLEM?**
» [Dr. Deborah J. Hall](#), Mr. John Wong, Mrs. Jennifer Wright, Ms. Julia Hochstatter, Ms. Amy Miller, Dr. E. Bailey Terhune, Dr. Brett Levine, Dr. Robin Pourzal
- 14:30 **INTEGRATING TECHNOLOGIES TO TREAT TKA PATIENTS WITH CEMENT AND METAL HYPERSENSITIVITIES AND SEVERE BONE DEFECTS**
» [Dr. Georg Hettich](#), Dr. Amir Qureshi, Prof. Thomas M. Grupp

- 14:36 **ECONOMIC AND DEMOGRAPHIC IMPACT OF ASEPTIC LOOSENING AFTER KNEE ARTHROPLASTY: A REGISTRY AND HEALTHCARE COST ANALYSIS STUDY**
» [Dr. Domenico Alesi](#), Dr. Anna Pagano, Prof. Stefano Zaffagnini
- 14:42 **TWO SOFTWARE SYSTEMS (V3MA AND CTMA) MEASURING CT-BASED IMPLANT MIGRATION HAVE COMPARABLE PRECISION**
» Ms. Maaike de Bondt, Dr. Frank-David Øhrn, Dr. Lars Engseth, Dr. Anselm Schulz, Dr. Bart Kaptein, Prof. Stephan Röhrli, [Dr. Petra Heesterbeek](#)
- 14:00 **Shark Tank Finals**
Ellisse Room 5
Chaired by: Prof. FARES HADDAD
- 14:00 **Dr Kambiz Behzadi**
» [Dr. Kambiz Behzadi](#)
- 14:06 **Dr Vinette Batta**
» [Dr. Vinette Batta](#)
- 14:12 **Dr John Slevin**
» [Dr. John Slevin](#)
- 14:18 **Ms Marwa Fawal**
» [Ms. Marwa Fawal](#)
- 14:24 **Dr Brett Robetson**
» [Dr. Brett Robertson](#)
- 15:00 **Coffee/Tea Break**
Exhibitors' Area
- 15:30 **GUEST NATION South Korea**
Room 1 & 2
Chaired by: Prof. Stefano Gumina and Dr. Vittorio Candela



Continued from **Saturday, 20 September**

- 15:30 **Current biomechanics in shoulder arthroplasty**
» [Prof. Sang-jin Shin](#)
- 15:36 **PSI guide does not solve everything**
» [Prof. Hyun Seok Song](#)
- 15:42 **Current technology in Hip arthroplasty**
» [Prof. Byung Woo Min](#)
- 15:48 **Current navigation technology in shoulder arthroplasty**
» [Dr. Jae Chul Yoo](#)
- 15:54 **Partial Glenoid Arthroplasty for Severe Glenoid Bone Loss in Anterior Shoulder Instability**
» [Prof. Sae Hoon Kim](#)
- 15:30 **Shoulder biomechanics and post-arthroplasty function**
Room 3
Chaired by: Dr. SANG-JIN SHIN and HYUN SEOK SONG
- 15:30 **SCALING UP BIOMECHANICAL DISCOVERY: POPULATION-LEVEL ANALYSIS WITH 3,000 FEA SIMULATIONS**
» Mrs. Christine Mueri, Dr. Ghislain Maquer, Mr. Lukas Connolly, Mr. Adam Henderson, Dr. Jeffrey Bischoff, [Dr. Philippe Favre](#)
- 15:36 **THE EFFECT OF REVERSE SHOULDER ARTHROPLASTY IMPLANT DESIGN, PLANE OF ELEVATION, AND HUMERAL AXIAL ROTATION ON IMPINGEMENT DURING GLENOHUMERAL ELEVATION: A BIOMECHANICAL STUDY**
» [Mr. Cole Fleet](#), Dr. Beatrice Ricciardi, Dr. James Johnson, Dr. George Athwal
- 15:42 **RESTORATION OF THE NATIVE HUMERAL HEAD CENTER IN STEMLESS TSA - HOW MUCH HEAD VERSATILITY IS REQUIRED?**
» [Mrs. Christine Mueri](#), Mr. Yang Son, Mr. Kyle Snethen, Dr. Philippe Favre, Mr. Raymond Parisi

- 15:48 **PATIENT-SPECIFIC CONTACT MECHANICS FOR ANATOMIC AND REVERSE TOTAL SHOULDER ARTHROPLASTY**
» Mr. Brendan Curran, Mr. Ignacio Rivero-Crespo, Dr. Thor Andreassen, Dr. Kevin Shelburne, Dr. Peter Laz, [Dr. Casey Myers](#)
- 15:54 **STABILITY OF STEMLESS AND SHORT-STEM SHOULDER IMPLANTS IN REVERSE CONFIGURATION: A COMPARATIVE QCT-BASED FINITE ELEMENT ANALYSIS OF THE SMR STEMLESS AND PRIMA STEM PROSTHESES**
» [Ms. Annalisa Bertoni](#), Mr. Cristiano Pizzamiglio, Mr. Axel Pavan, Mr. Andrea Fattori, Mr. Michele Pressacco
- 16:00 **IMPACT OF SUBSCAPULARIS DEFICIENCY ON GLENOHUMERAL JOINT MECHANICS FOLLOWING ANATOMICAL AND REVERSE TOTAL SHOULDER REPLACEMENT**
» [Mr. Iman Soodmand](#), Mr. Tilman Klose, Mr. Leo Ruehrmund, Dr. Sven Herrmann, Prof. Christoph Lutter, Prof. Thomas Tischer, Prof. Christoph Woernle, Prof. Rainer Bader, Dr. Maeruan Keibach
- 16:06 **MIND THE GAP: INFLUENCE OF HUMERAL HEAD-BONE CONTACT ASSUMPTIONS ON PREDICTED PRIMARY STABILITY IN A STEMLESS SHOULDER IMPLANT**
» Mr. Oswald Morales, Dr. Ingmar Fleps, Dr. Philippe Favre, [Mrs. Christine Mueri](#)
- 16:12 **PERFORMANCE OF AN ADLC-ON-TITANIUM GLENOSPHERE UNDER CLEAN AND ABRASIVE PRECLINICAL TESTING CONDITIONS**
» [Ms. Ruth Heckler](#), Mr. Joel Weisenburger, Mr. Ryan Siskey, Dr. Patrick Hall, Ms. Nicole Plata, Dr. Hani Haider
- 15:30 **Alignment and Kinematics in TKA**
Room 4
Chaired by: Prof. Sebastien Lustig and Prof. PIER FRANCESCO INDELLI
- 15:30 **Does coronal alignment affect tibial implant micromotion in kinematic aligned TKA?**
» [Dr. Chase Maag](#), Mr. Dustin Albert, Mr. Jason Chavarria, Mr. Mick Rock



Continued from Saturday, 20 September

- 15:36 **EXAMINING THE ROLE OF PATIENT CPAK PHENOTYPE IN FEMOROTIBIAL KINEMATICS IN TKA: A COMPARISON OF MECHANICAL VERSUS KINEMATIC ALIGNMENT**
» Mr. Caleb Chesney, Dr. Michael LaCour, Dr. Richard Komistek
- 15:42 **Preoperative quadriceps malalignment is associated with poor outcomes after knee replacement which are avoided by external rotation of the femoral component based on a preoperative CT planning algorithm**
» Dr. Simon Talbot
- 15:48 **CAN SYMMETRIC PS TKA PRODUCE NORMAL-LIKE WEIGHT BEARING KINEMATICS?**
» Dr. Michael LaCour, Mr. Zheng Peng, Mr. Garrett Dessinger, Dr. Richard Komistek, Dr. Tom Bradbury
- 15:54 **Mechanical Alignment in Total Knee Arthroplasty: A Coronal Plane Alignment of the Knee (CPAK) Analysis**
» Dr. Carmelo Burgio, Dr. Karlos Zepeda, Ms. Tsion Yared, Dr. Gina Mosich, Dr. Seth Jerabek, Dr. David Mayman, Dr. Eytan Debbi, Dr. Jonathan Vigdorichik
- 16:00 **LONG-TERM CLINICAL OUTCOMES AFTER KINEMATICALLY ANALYSED TOTAL KNEE ARTHROPLASTY**
» Dr. Masashi Tamaki, Dr. Teruya Ishibashi, Mr. Takaharu Yamazaki, Mr. Shoji Konda, Dr. Toshitaka Fujito, Dr. Kenichi Kono, Prof. Seiji Okada, Dr. Tetuya Tomita
- 16:06 **BONE STRESS RELAXATION IN PRESS-FIT FEMORAL KNEE IMPLANT FIXATION: A COMBINED EXPERIMENTAL AND COMPUTATIONAL ANALYSIS**
» Mr. Thomas Gersie, Dr. Thom Bitter, Mr. Robert Freeman, Prof. Nico Verdonshot, Dr. Dennis Janssen
- 16:12 **EFFECT OF PCL RETENTION AND TIBIAL SLOPE ON KNEE MECHANICS FOR MEDIAL CONTRUENT TOTAL KNEE ARTHROPLASTY**
» Mr. Kyle Snethen, Mr. Eik Sigglekow, Mr. Marc Bandi, Dr. Nicholas Frisch

15:30 **Short Talk: HIP ARTHROPLASTY OUTCOMES**

Ellisse Room 5

Chaired by: Dr. Paul Beaulé

- 15:30 **Factors driving higher opioid use after total hip arthroplasty: Insights from a large-scale, tertiary centre analysis**
» Dr. Andreas Fontalis, Dr. Shannon Tse, Dr. Mads K. Hansen, Dr. Malik Amna Khatoon, Dr. Adam T. Yassen, Dr. Crystallynn S. The, Mr. Warran Wignadasan, Dr. Ricci Plastow, Prof. FARES HADDAD
- 15:33 **Surgeon-Initiated Pericapsular Nerve Group (SI-PENG) Block for Femoral Neck Fractures in Older Adults: A Pilot Study**
» Dr. JUN XIE
- 15:36 **LONG-TERM IMPACT OF FEMORAL HEAD CENTER POSITION ON PATIENT-REPORTED OUTCOMES FOLLOWING TOTAL HIP ARTHROPLASTY FOR DEVELOPMENTAL DYSPLASIA OF THE HIP: A MINIMUM 18-YEAR FOLLOW-UP STUDY**
» Dr. Eiji Takahashi, Dr. Toru Ichiseki, Dr. Daisuke Soma, Dr. Makoto Fukui, Dr. Yusuke Sanji, Prof. Ayumi Kaneuji
- 15:39 **IMPACT OF HIP PRECAUTIONS ON FEAR AND FUNCTIONAL OUTCOMES IN PATIENTS UNDERGOING TOTAL HIP ARTHROPLASTY: A RANDOMIZED CONTROLLED STUDY**
» Dr. Motahareh Karimijashni, Dr. Stéphane Poitras, Dr. Wade Gofton, Dr. Sophie Ba, Dr. Paul Beaulé
- 15:42 **Semi-automated radiographic assessment of radiolucent lines and their progression over time in cementless total hip replacement patients**
» Prof. Ruth Wilcox, Dr. Roslyn Cassidy, Dr. Janet Hill, Dr. David Horne, Prof. Sophie Williams, Prof. David Beverland, Prof. Graham Isaac
- 15:45 **CHARACTERISING CORTICAL THICKENING IN CEMENTLESS TOTAL HIP REPLACEMENT PATIENTS THROUGH AUTOMATED RADIOGRAPHIC ASSESSMENT**
» Mr. Callum Keighley, Prof. Graham Isaac, Prof. Sophie Williams, Prof. David Beverland, Dr. David Horne, Prof. Ruth Wilcox



Continued from **Saturday, 20 September**

- 15:48 **Establishing Minimal Clinically Important Differences and Substantial Clinical Benefit Thresholds for Various Objective Gait Metrics after Total Hip Arthroplasty**
» Dr. Roberta Redfern, Dr. Shujaa Khan, Dr. Michael Archibeck, Dr. Christopher Peters, Dr. Mike Anderson, Dr. Nicolas Piuze, Mr. Adam Henderson
- 15:51 **Short-Term Patient Reported Outcomes and Complication Rates of Hip Resurfacing After Previous Hip Arthroscopy: A Propensity-Matched Comparative Study**
» Ms. Elizabeth Walsh, Ms. Elizabeth O'Brien, Dr. Nils Becker, Dr. Benjamin Kuhns, Dr. Benjamin Domb
- 15:54 **Bone wax reduces blood loss after total hip arthroplasty: a prospective, randomized controlled study**
» Dr. Chao Huang, Dr. Hao Li, Prof. Zongke Zhou
- 15:57 **THE HIP USER INDEX - A SINGLE METRIC FOR ASSESSING SPINOPELVIC RISK IN THA**
» Dr. Jim Pierrepont, Mr. Christopher Plaskos, Mr. Linden Bromwich, Dr. Hossein Shafiei, Mr. Jon Baré, Dr. Steve McMahon, Mr. Andrew Shimmin
- 16:00 **Comparative Analysis of Birmingham Hip Resurfacing: Minimum 2-Year Follow-Up Clinical Outcomes in Obese vs. Non-Obese Populations**
» Dr. Roger Quesada-Jimenez, Ms. Elizabeth Walsh, Dr. Ady Kahana-Rojkind, Dr. Benjamin Kuhns, Mr. Andrew Schab, Dr. Benjamin Domb
- 16:03 **LONG-TERM OUTCOMES OVER 10 YEARS OF A SHORT ANATOMICAL STEM DEVELOPED FOR OSTEOARTHRITIS DUE TO DEVELOPMENTAL DYSPLASIA OF THE HIP**
» Dr. Yusuke Sanji, Dr. Eiji Takahashi, Dr. Toru Ichiseki, Dr. Daisuke Soma, Dr. Makoto Fukui, Prof. Ayumi Kaneuji

16:06 **Long-Term Clinical Results and Patient Satisfaction of a Metaphyseal-Engaging Anatomic Cementless Femoral Component in Total Hip Arthroplasty**
» Dr. Young-Hoo Kim, Dr. Jang-Won Park, Dr. Young-Soo Jang, Dr. Eun-Jung Kim

16:09 **Comparative Outcomes of Simultaneous Bilateral Hip Resurfacing Versus Total Hip Arthroplasty: A Propensity-Score Matched Analysis**
» Mr. Anand Saluja, Mr. Louis Jordan, Mr. Ryan Cheng, Dr. Daniel Driscoll, Dr. Cynthia Kahlenberg, Dr. Mark Figgie, Dr. Edwin Su

16:30 **ISTA AWARDS SESSION**
Room 1 & 2
Chaired by: Prof. Catherine Van Der Straeten and Prof. nico verdonschot and Prof. FARES HADDAD and Prof. Stefano Gumina

The Ongoing Importance of Failure Analysis in Contributing to the Success of Joint Replacements
» Prof. Clare Rimnac

Does Technology Increase the Risk of Manipulation Under Anesthesia? Evaluating the Role of the Learning Curve
» Dr. Carmelo Burgio

Sunday, 21 September

08:00 **Breakfast in exhibitors' area**
Exhibitors' Area

08:00 **Short Talks: KNEE KINEMATICS and ALIGNMENT 2**
Room 1 & 2
Chaired by: Dr. Yasushi Oshima



Continued from Sunday, 21 September

- 08:00 **EVALUATING DYNAMIC HIP-KNEE-ANKLE ALIGNMENT UNDER CONTROLLED LOAD DURING NAVIGATED TOTAL KNEE ARTHROPLASTY**
» Dr. Prudhvi Tej Chinimilli, Mr. Laurent Angibaud, Mr. Amaury Jung, Dr. James Huddleston
- 08:03 **ACHIEVED GAPS IN HANDHELD ROBOTIC-ASSISTED TOTAL KNEE ARTHROPLASTY ARE ASSOCIATED WITH POST-OPERATIVE DYNAMIC VARUS-VALGUS ALIGNMENT DURING GAIT**
» Dr. Pierre RANGER, Ms. Bianca MAROIS, Mr. Alix CAGNIN, Mr. Mohammad El Kazouiny, Mr. Alex Fuentes
- 08:06 **DYNAMIC CORONAL ALIGNMENT DURING GAIT DIFFERS ACROSS FUNCTIONAL KNEE PHENOTYPES IN HEALTHY INDIVIDUALS**
» Prof. Michael Hirschmann, Dr. George Avram, Dr. Randa Elsheikh, Mr. Alix CAGNIN, Mr. Alex Fuentes, Prof. Pascal-André Vendittoli
- 08:09 **LIGAMENT PRECONDITIONING IN TOTAL KNEE ARTHROPLASTY WITH APPLICATION TO PATIENT-SPECIFIC SOFT TISSUE BALANCING**
» Dr. Alexander Orsi, Mr. Christopher Plaskos, Dr. Jeffrey Lawrence
- 08:12 **Evaluation of in vivo kinematics after TKA and normal knees using finite helical axis**
» Dr. Teruya Ishibashi, Dr. Masashi Tamaki, Mr. Takaharu Yamazaki, Mr. Shoji Konda, Dr. Toshitaka Fujito, Dr. Kosuke Kitanishi, Dr. Akihiko Ezaki, Dr. Shuma Kinoshita, Prof. Seiji Okada, Dr. Tetuya Tomita
- 08:15 **A COMPREHENSIVE BIOMECHANICAL STUDY OF THE PATELLOFEMORAL JOINT: PART I: THE DESIGN OF AN APPARATUS FOR FULL LEG ROBOTIC BIOMECHANICAL TESTING**
» Dr. Mounir Boudali, Mr. Jobe Shatrov, Dr. Koki Abe, Dr. David Parker, Prof. William Walter, Dr. Elizabeth Clarke

- 08:18 **In vivo kinematic comparison of medial pivot total knee arthroplasty in weight-bearing and non-weight-bearing deep knee bending**
» Dr. Kosuke Kitanishi, Dr. Teruya Ishibashi, Mr. Takaharu Yamazaki, Dr. Masashi Tamaki, Mr. Shoji Konda, Dr. Kenichi Kono, Prof. Seiji Okada, Dr. Tetuya Tomita
- 08:21 **KINEMATIC ALIGNMENT COUPLED WITH OFF-THE-SHELF FEMORAL COMPONENTS RESULTS IN SYSTEMATIC UNDERSTUFFING AND FREQUENT INTERNAL ROTATION OF THE ANTERIOR COMPARTMENT IN A SIGNIFICANT PROPORTION OF PATIENTS**
» Dr. Marco Edoardo Cardinale, Dr. Giancarlo Giurazza, Dr. Edoardo Franceschetti, Dr. Stefano Campi, Dr. Pietro Gregori, Dr. Marco Donantoni, Dr. Antongiulio Manfreda, Prof. Rocco Papalia
- 08:00 **Short Talks: SPINE and SMALL JOINTS**
Room 3
Chaired by: Prof. Markus Wimmer
- 08:00 **Sensitivity of Lumbar Total Joint Replacement to Axial and Coronal Plane Misalignment: An In Silico Study**
» Dr. Steven Rundell, Prof. Steven Kurtz, Dr. Hannah Spece, Mr. Ron Yarbrough
- 08:03 **MULTIOBJECTIVE DESIGN OPTIMIZATION OF A TOTAL DISC REPLACEMENTS BONE-IMPLANT INTERFACE**
» Ms. Lucia Kölle, Mr. Victor Oei, Ms. Ida Mónus, Prof. Syn Schmitt, Dr. Daniel Haschtmann, Dr. Fabio Galbusera, Prof. Stephen J. Ferguson, Dr. Benedikt Helgason
- 08:06 **How Does Vertebral Stiffness Vary Along the Thoracic Spine? A Subject-Specific Computational Modeling Study?**
» Mr. Eiden Lami, Dr. Majd Mzeihem, Dr. Alessia Gimeno, Prof. Farid Amirouche
- 08:09 **USE OF REGRESSION AND MACHINE LEARNING TO PREDICT SPINOPELVIC MOBILITY 1 YEAR AFTER TOTAL HIP ARTHROPLASTY**
» Dr. Jim Pierrepont, Mr. Christopher Plaskos, Mr. Linden Bromwich, Dr. Steve McMahon, Mr. Jon Baré, Dr. Michael O'Sullivan, Mr. Andrew Shimmin



Continued from Sunday, 21 September

- 08:12 **BIOMECHANICAL ANALYSIS OF PATIENT-SPECIFIC IMPLANTS FOR UNILATERAL AND BILATERAL TEMPOROMANDIBULAR JOINT DISORDERS**
» Dr. Iyoti Iyoti, Dr. Girsh Chandra, Prof. Ajoy RoyChoudhury, Dr. Kamalpreet Kaur, Prof. Anoop Chawla, Prof. Sudipto Mukherjee, Dr. Kaushik Mukherjee
- 08:15 **Patient Satisfaction for Post-Operative Carpometacarpal Arthroplasty: Woodcasting Versus Thermoplastic Splint**
» Mr. Tientien Nguyen, Mr. Joshua Hancock, Mr. Humberto Cardona, Ms. Tien Nguyen, Dr. Daniel Bailey, Dr. Alfred Hess, Dr. Michael Doarn
- 08:18 **Development of a Machine Learning Enabled Wearable Motion Sensing System for Quantifying Wrist Kinematics in Total Wrist Arthroplasty (TWA) Patients**
» Ms. Maria Morrow, Ms. Katelyn Daniewicz, Ms. Nicole Stone, Ms. Abby Hollingworth, Prof. Joseph Crisco, Dr. Ryan Chapman
- 08:21 **ACCURACY AND PRECISION OF COMPUTER-ASSISTED SURGERY COMPARED WITH CONVENTIONAL INSTRUMENTATION FOR TOTAL ANKLE ARTHROPLASTY**
» Mr. Matt Rueff, Mr. Zach Tupper, Dr. Matt Hamilton, Mr. Scott Gulbransen, Mr. Phong Diep, Mr. Laurent Angibaud, Mr. Cyril Hamad, Dr. Edward Haupt
- 08:00 **Short Talks: KNEE SURGICAL TECHNIQUES 2**
Room 4
Chaired by: Prof. Sebastien Lustig
- 08:00 **No Discernible Difference in Revision Rate or Survivorship Between Posterior Cruciate-Retaining and Posterior Cruciate-Substituting Total Knee Arthroplasty**
» Dr. Young-Hoo Kim, Dr. Jang-Won Park, Dr. Young-Soo Jang, Dr. Eun-Jung Kim

- 08:03 **Comparison of Patient Demographics and Implant Complications for Unicompartamental Knee Arthroplasty and High Tibial Osteotomy Patients Undergoing Conversion Total Knee Arthroplasty**
» Dr. Adam Gordon, Mr. Patrick Nian, Mr. Joydeep Baidya, Dr. Michael Mont
- 08:06 **VARIATION OF VITAL SIGNS AND BLOOD EXAMINATION DATA AFTER DEFLATION OF PNEUMATIC TOURNIQUET IN TOTAL KNEE ARTHROPLASTY**
» Dr. Hiroki Yoshida, Dr. Yasushi Oshima, Dr. Tokifumi Majima
- 08:09 **275 Deep Venous Thrombosis after Total Knee Arthroplasty recovered in 73.3 days.**
» Dr. Michiru Moriya, Dr. TAISEI KAWAMOTO, Dr. Yukio Milkami
- 08:12 **INTRAOPERATIVE CRYO-NEUROLYSIS REDUCES PAIN AND OPIOID USE AFTER TOTAL KNEE ARTHROPLASTY**
» Dr. Mohamed Elfekky, Ms. Mohadese Rajaeirad, Dr. Samih Tarabichi
- 08:15 **INFLUENCE OF RANGE OF MOTION ON THE CHOICE OF ALIGNMENT TECHNIQUE IN TOTAL KNEE ARTHROPLASTY**
» Mrs. Ann-Kathrin Einfeldt, Mr. Lars Tücking, Prof. Henning Windhagen, Dr. Eike Jakobowitz
- 08:18 **Does Lateral Column Lengthening Influence Patient Outcomes in Robotic-Assisted Total Knee Arthroplasty?**
» Ms. Saloni Haruray, Ms. Catherine Di Gangi, Dr. Theodor Di Pauli von Treuheim, Dr. Patrick Meere, Dr. Morteza Meftah, Dr. Matthew Hepinstall
- 08:21 **PATIENTS UNDERGOING MANIPULATION UNDER ANAESTHESIA RECOVER MOBILITY BUT HAVE WORSE FUNCTIONAL OUTCOMES COMPARED WITH PATIENTS WHO ARE NOT MANIPULATED**
» Dr. Karl Surmacz, Dr. Craig Israelite, Dr. Robert Barrack, Dr. Jared Foran, Dr. Mara Catalina Aguilera Canon, Dr. Jason Cholewa, Dr. Roberta Redfern, Mr. Scott Abshagen



Continued from **Sunday, 21 September**

- 08:00 Short Talks: GENERAL - Evaluation of technological aids**
Ellisse Room 5
Chaired by: Prof. Catherine Van Der Straeten
- 08:00 EVALUATING A MEDICAL CHATBOT FOR PRE-CONSULTATION ADMISSION: IMPACT ON PATIENT PERCEPTION AND EXPERIENCE**
» Dr. Julien Lebleu, Mr. Sander Goossens, Mr. Quinten Schietecatte, Mr. Charles-Eric Winandy, Mr. Ward Servaes, Dr. Philippe Van Overschelde
- 08:03 THE VALUE OF A TOTAL JOINT HOTLINE FOR TRIAGING POST-OPERATIVE PATIENTS; IS OLD SCHOOL BETTER?**
» Dr. Willard Moore, Dr. George Chimento, Dr. Bhumit Desai, Dr. Miguel Jaramillo, Mr. Cruz Velasco-Gonzalez, Dr. Jimmy Daher
- 08:06 PERIOPERATIVE SHORT-TERM GLUCOCORTICOIDS DO NOT INCREASE INCIDENCE OF COMPLICATIONS AFTER TOTAL JOINT ARTHROPLASTY IN PATIENTS WITH RHEUMATOID ARTHRITIS**
» Dr. Yahao Lai
- 08:09 CLINICAL OUTCOMES OF CONTINUOUS LOCAL ANTIBIOTIC PERFUSION (CLAP) FOR PERIPROSTHETIC JOINT INFECTION A retrospective study of 22 cases**
» Dr. Daiki Kawate, Dr. Yoshiaki Miyake
- 08:12 Evaluation of a Novel Hemostatic Technique in Total Knee Arthroplasty**
» Dr. MAKOTO TAKAZAWA
- 08:15 NOVEL NEW APPROACH TO REMOVING CEMENTED STEMS USING EMF**
» Dr. Gerhard Maale
- 08:18 BLOODLESS TOTAL JOINT ARTHROPLASTY IN JEHOVAH'S WITNESS PATIENTS: OUTCOMES OF A STANDARDIZED PERIOPERATIVE PROTOCOL**
» Mr. Victor Shen, Dr. Kevin Salomon, Dr. Levonti Ohanian, Dr. Peter Simon, Dr. Michael Miranda, Dr. Thomas Bernasek

- 08:30 Partial knee arthroplasty and patella resurfacing in TKA**
Room 1 & 2
Chaired by: Prof. Francesco Benazzo
- 08:30 Patellofemoral arthroplasty and combined unicompartmental knee arthroplasty: better option than a TKA?**
» Mr. Francesco Benazzo
- 08:36 Does the use of technology (incl. robotics) in unicompartmental knee arthroplasty lead to better outcomes?**
» Prof. Fabio Catani
- 08:42 Monocompartmental knee arthroplasty: long term outcomes - does it compare to TKA: advantages/disadvantages?**
» Prof. Sebastien Lustig
- 08:48 ROBOT-ASSISTED PARTIAL KNEE REPLACEMENT VERSUS STANDARD TOTAL KNEE REPLACEMENT (ROBOKNEES): A PILOT RANDOMIZED CONTROLLED TRIAL**
» Dr. Kim Madden, Ms. Breanne Flood, Ms. Monica Malek, Ms. Kim Irish, Mr. Rayan Ahmad, Dr. Janie Astephen Wilson, Dr. Vickas Khanna, Dr. Anthony Adili
- 08:54 PATELLA RESURFACING VS. UNRESURFACING FOR BCS TKA: ARE THERE FEMOROTIBIAL AND PATELLOFEMORAL KINEMATIC DIFFERENCES?**
» Mr. Caleb Chesney, Dr. Lauren Smith, Dr. Michael LaCour, Dr. Richard Komistek
- 09:00 THE PATELLOFEMORAL JOINT REMAINS A SOURCE OF COMPLICATIONS AFTER TKA DEPENDING ON IMPLANT SELECTION: A LARGE-SCALE SYSTEMATIC REVIEW OF 38,956 CASES**
» Mr. Don Le, Mr. Matthew Cao, Dr. Hongjia He, Dr. Robert Frangie, Dr. Adam Freedhand, Dr. Philip Noble, Dr. Shuyang Han
- 08:30 Forum Technology in Tumour resection/reconstruction/postop rehab**
Room 3
Chaired by: Prof. Gwen Sys and Giulio Maccauro



Continued from Sunday, 21 September

- 08:30 **Technology in orthopaedic tumour surgery: small joints: How technology could improve hand and wrist oncological joint**
» [Dr. Alessia Pagnotta](#)
- 08:36 **Technology in orthopaedic tumour surgery: Use of technology in orthopaedic oncology: surgery preparation; reconstruction; postoperative rehab**
» [Prof. Gwen Sys](#)
- 08:42 **3d printed prostheses in musculoskeletal oncology**
» [Prof. Pietro Ruggieri](#)
- 08:48 **GA-DOPED BIOGLASS EMBEDDED HYDROGEL COATINGS FOR PH-RESPONSIVE OSTEOSARCOMA TARGETED THERAPY**
» [Ms. Isobel Rees](#), Dr. Joshua Owen, Prof. Richard M. Hall, Prof. Richard Martin, Dr. Jonathan Stevenson, Prof. Michael Bryant
- 08:54 **ASSESSING THE ACCURACY OF 3D ASSISTIVE TECHNOLOGIES FOR SURGICAL GUIDANCE OF OSTEOSARCOMA RESECTIONS: A COMPARATIVE STUDY OF MIXED REALITY, PATIENT-SPECIFIC INSTRUMENTS AND FREEHAND APPROACHES**
» Mr. Jose Caceres-Alban, Dr. Dieter Lindskog, Mr. Johannes Sieberer, [Dr. Lisa Lattanza](#), Dr. Steven Tommasini, Mrs. Alyssa Glennon
- 09:00 **EVALUATION OF METAPHYSEAL SLEEVES AS A FIXATION STRATEGY FOR DISTAL FEMUR REPLACEMENT: A BIOMECHANICAL STUDY**
» Dr. Christopher Leibold, Dr. Jared Newman, Mr. Miguel Diaz, Dr. Pablo Sanchez-Urgelles, Dr. Peter Simon, [Dr. Thomas Bernasek](#)
- 09:06 **ENHANCED FATIGUE AND MONOTONIC PROPERTIES FOR ECONOMICALLY SCALABLE ADDITIVE-MANUFACTURED Ti64**
» Mr. David Schroeder, Dr. Taban Larimian, [Mr. Shilesh Jani](#)
- 09:12 **Predicting the Probability of Tumor-Specific Survival in Postoperative Patients With Primary Spinal and Pelvic Sarcomas Using a Novel Clinical Tool**
» [Dr. Chao Huang](#), Prof. Zongke Zhou

- 09:18 **Enhancing Surgical Precision in Limb-Salvage Surgery: Proof-of-Concept Study of a Novel Multifunctional Patient-Specific Guide**
» [Mr. Milan Roelens](#), Mr. Sam Dhaene, Mr. Léonard Geudin, Prof. Gwen Sys
- 08:30 **Results of Reverse Total Shoulder Arthroplasty**
Room 4
Chaired by: Dr. SANG-JIN SHIN and Dr. Vittorio Candela
- 08:30 **Return to Sports Activity After Reverse Total Shoulder Arthroplasty**
» [Dr. Seong San Park](#), Dr. JAE CHUL (JC) YOO, Dr. Seung Jin Yoo, Dr. JongHun Kim
- 08:36 **PREOP VS. POSTOP RTSA: SCAPULA MAXIMUM RANGE OF MOTION DURING GLENOHUMERAL SCAPTION AND FORWARD FLEXION**
» [Dr. Renato Miyadahira](#), Dr. Arden Shen, Dr. Matheus Vilela, Dr. Christopher Knowlton, Dr. Gregory Nicholson, Dr. Grant Garrigues, Dr. Jonathan Gustafson
- 08:42 **Biomechanical Comparison of Augmentation versus Asymmetric Reaming for Posterior Glenoid Erosion in Reverse Total Shoulder Arthroplasty**
» [Dr. SANG-JIN SHIN](#)
- 08:48 **HOW DO IMPINGEMENT MECHANISMS DURING ACTIVITIES OF DAILY LIVING DIFFER BETWEEN ANATOMIC AND REVERSE TSA?**
» [Dr. Alessandro Navacchia](#), Mr. Nihit Tuli, Dr. Bertrand Kaper, Dr. Michael O'Brien, Dr. Michael Freehill, Dr. Christopher Klifto
- 08:54 **PREOP VS POSTOP RTSA: SCAPULAR ROTATION AND TILT DURING HYPER-ADDUCTION**
» [Dr. Renato Miyadahira](#), Dr. Matheus Vilela, Dr. Arden Shen, Dr. Christopher Knowlton, Dr. Gregory Nicholson, Dr. Grant Garrigues, Dr. Jonathan Gustafson



Continued from **Sunday, 21 September**

09:00 **USE OF REVERSE WEDGED BASEPLATES TO CORRECT GLENOSPHERE INCLINATION IN NON-ARTHRITIC GLENOIDS: QUANTIFICATION OF BONE SPARING AND MEDIALIZATION WITH THE PRIMA TT GLENOID BASEPLATES**

» [Mr. Axel Pavan](#), Mr. Cristiano Pizzamiglio, Mr. Andrea Fattori, Mr. Nicola Del Negro, Mr. Michele Pressacco

09:30 **NEW MATERIALS FOR JOINT ARTHROPLASTY**

Room 1 & 2

Chaired by: Prof. Markus Wimmer and Ebru Oral

09:30 **3-YEAR UPDATE ON THE EARLY SAFETY AND PERFORMANCE DATA ON THE NOVEL PEEK-OPTIMA METAL FREE TKA SYSTEM**

» [Dr. Dries Van Leemput](#), Dr. Frederique Vanermen, Mrs. Kristien Vuylsteke, Prof. Peter Verdonk

09:36 **UNDERSTANDING THE INFLUENCE OF CONTACT PRESSURE AND CONTACT AREA ON THE COEFFICIENT OF FRICTION OF UHMWPE-ON-PEEK OPTIMA™**

» [Ms. Tanya Seth](#), Dr. Raelene Cowie, Dr. Adam Briscoe, Prof. Louise Jennings

09:42 **IN HOUSE 3D PRINTED PEEK COMPOSITES WITH hBN AND SiO₂ FOR IMPROVED JOINT IMPLANT PERFORMANCE.**

» [Mr. Dilesh Raj Shrestha](#), Prof. Xiaolong Wang, Prof. Nazanin Emami

09:48 **EFFECTS OF STRESS DISTRIBUTION AND FAILURE PROBABILITY ON DEVELOPMENT OF A BIOLOX® DELTA CERAMIC KNEE IMPLANT**

» [Dr. Anne Gebert de Uhlenbrock](#), Mr. Markus Flohr, Prof. Meinhard Kuntz

09:54 **Primary stability evaluation by digital image correlation of an additively manufactured cementless tibia implant with a ZrN-multilayer ceramic surface coating under dynamic stair climbing conditions in human tibiae**

» [Prof. Thomas M. Grupp](#), Mr. Julius C Dohm, Dr. Berna Richter, Dr. Sunil P Reddy, Prof. Stefan Landgraeber, Dr. Lukas Reissig, Prof. Egon Perilli, Dr. Christoph Schilling

10:00 **EXPLORING THE BIOLOGICAL IMPACT OF DLC COATINGS**

» [Mr. Massimiliano Tomaselli](#), Mr. Stefano Rappo, Mr. Mukesh Kumar

10:06 **TRANSMISSION ELECTRON MICROSCOPY OF DIFFERENT IMPLANT COATINGS: PVD TiN, PVD TiNbN, AND IBED TiN**

» [Mr. Dermott McHugh](#), Dr. Brian Van Devener, Dr. Arnold Deutchman, Ms. Kayleen Lopez, Dr. Randall Polson, Ms. Anna Sullivan

10:12 **SILVER NANOPARTICLES COATING FOR ORTHOPAEDIC IMPLANTS**

» [Mr. Pierfrancesco Robotti](#), Dr. Enrico Sandrini, Mr. Francesco Giovagnoni

09:30 **Forum Technology for Hand/Wrist arthroplasty**

Room 3

Chaired by: Dr. Alessia Pagnotta and Prof. Emmanuel Masmejean

09:30 **Use of technology in hand surgery: correction of deformities and arthroplasty**

» [Prof. Andrea Redler](#)

09:36 **Use of technology in small joints arthroplasty: The Cap-flex PIP implant: Indications, results and complications**

» [Dr. Martin Richter](#)

09:42 **Place of the trapeziometacarpal prosthesis in 1st carpometacarpal joint osteo-arthritis**

» [Prof. Emmanuel H. Masmejean](#)

09:48 **Small joints replacement for hand osteoarthritis: where are we now?**

» [Dr. Rocco Papalia](#)

09:54 **COMPARISON OF CLINICAL OUTCOMES AND COMPLICATIONS BETWEEN RETENTIVE INSERT AND DUAL MOBILITY TRAPEZIOMETACARPAL PROSTHESES: A RETROSPECTIVE STUDY.**

» [Dr. Chiara Capperucci](#), Dr. Lorenzo Diaz, Dr. Erika Albo, Dr. Giulia De Marco, Prof. Biagio Zampogna, Dr. Andrea Zampoli, Dr. Nicola Papapietro, Prof. Rocco Papalia



Continued from Sunday, 21 September

10:00 **Characterizing Error Computing Wrist Kinematics during Activities of Daily Living using Wearable Inertial Measurement Units (IMUs) versus Optical Motion Capture**

» Ms. Abby Hollingworth, Ms. Nicole Stone, Ms. Maria Morrow, Ms. Katelyn Daniewicz, Prof. Joseph Crisco, [Dr. Ryan Chapman](#)

10:06 **Characterizing Error Quantifying Wrist Kinematics during Typical Activities Using Wearable Inertial Measurement Units (IMUs) and Accelerometer Only Algorithms**

» Ms. Nicole Stone, Ms. Abby Hollingworth, Ms. Katelyn Daniewicz, Ms. Maria Morrow, Prof. Joseph Crisco, [Dr. Ryan Chapman](#)

09:30 **Debate: Internal rotation after RSA in 2025: is it really predictable**
Room 4

How to predict IR after RSA through preoperative planning system/VR

» [Dr. Jae Chul Yoo](#)

Patient related factors: look at the anatomy!

» [Prof. Vittorio Candela](#)

Implant related factors: the ideal implant to maximize IR

» [Dr. Maristella Saccomanno](#)

09:30 **Short Talks: KNEE ROBOTICS, NAVIGATION, AR/VR**

Ellisse Room 5

Chaired by: Dr. Alessandro Todesca

09:30 **INFLUENCE OF NATIVE AND NEUTRAL IMPLANT PLACEMENT ON KEEL TO CORTEX DISTANCE IN ROBOTIC MEDIAL UNICOMPARTMENTAL KNEE REPLACEMENT: A RETROSPECTIVE STUDY.**

» [Dr. Joe Lynch](#), Dr. Ajeya Ramesh, Dr. Jess Hall, Dr. THOMAS WARD

09:33

Description of a Sagittal Axis relevant to Total Knee Arthroplasty planning derived from Local Distal Femoral Morphological Reference Frame

» [Mr. Scott Logan](#), Mr. Ahmad Faizan

09:36

Medial-Pivot Kinematics Could Be Achieved by Optimizing Quantified Gap-Force Balancing in Robotic-Assisted Cruciate-Retaining Total Knee Arthroplasty

» [Dr. Hanlong Zheng](#), Prof. Yixin Zhou

09:39

IMPROVED SLEEP QUALITY FOLLOWING ROBOTIC-ASSISTED TKA WITH THE MISSO JOINT ROBOT COMPARED TO CONVENTIONAL TKA

» [Dr. Ravi Teja Rudraraju](#), Dr. Kunal Aneja, Dr. Supreet Bajwa, Dr. Ponnanna Karineravanda Machaiah

09:42

PRECISION IN FEMORAL COMPONENT ROTATION WITH THE MISSO ROBOTIC SYSTEM: COMPARING FUNCTIONAL ALIGNMENT TKA TO CONVENTIONAL TKA

» [Dr. Ravi Teja Rudraraju](#), Dr. Kunal Aneja, Dr. Sanjay Londhe, Dr. Ponnanna Karineravanda Machaiah, Dr. Supreet Bajwa

09:45

Short-term Outcomes of Femoral Internal Rotation with Robotic-Assisted Total Knee Arthroplasty

» Ms. Catherine Di Gangi, Dr. Hemant Reddy, [Ms. Saloni Haruray](#), Dr. Patrick Meere, Dr. Matthew Hepinstall, Dr. Morteza Meftah

09:48

THE INFLUENCE OF TECHNOLOGICAL PLATFORMS ON HKA ALIGNMENT IN CPAK-GUIDED TOTAL KNEE ARTHROPLASTY- Image Based Robotic Vs Imageless Robotic Vs Augmented Reality Vs Navigation Assisted: A Comparative Series Of 25 Each.

» Dr. ASHOK KUMAR PODHILI SUBRAMANI, [Dr. Aashay Sonkusale](#), Dr. Pichai Suryanarayan, Dr. Kalaivanan Kannian, Dr. Vijay Bose, Dr. Shantanu Patil, Dr. Kartik Ghathe



Continued from Sunday, 21 September

- 09:51 **CORRELATION OF TIBIAL COMPONENT ROTATION AND CLINICAL OUTCOMES AFTER TKA USING AR NAVIGATION SYSTEM WITH SMART GLASSES**
» Dr. Takayuki Koya, Dr. Atsushi Sato, Dr. Masataka Ota, Dr. Reo Nagasaka, Dr. Misako Takizawa, Dr. Toshiharu Miyazawa, Dr. Marika Mukunoki, Dr. Kanako Izukashi, Dr. Jun Oike, Dr. Takayuki Okumo, Dr. Saki Yagura, Prof. Koji Kanzaki
- 09:54 **Analysis of Intraoperative Elongation Patterns According to the CPAK Classification in Knee Osteoarthritis Using an AR-Based Navigation System**
» Dr. Atsushi Sato, Dr. Masataka Ota, Dr. Takayuki Koya, Dr. Misako Takizawa, Dr. Reo Nagasaka, Dr. Toshiharu Miyazawa, Dr. Marika Mukunoki, Dr. Kanako Izukashi, Dr. Jun Oike, Dr. Takayuki Okumo, Dr. Saki Yagura, Prof. Koji Kanzaki
- 09:57 **Mixed Reality and Artificial Intelligence in Osteotomies around the knee**
» Dr. Alfonso Manzotti, Dr. Miriam Grassi, Dr. Davide Brioschi, Prof. Pietro Cerveri
- 10:00 **CORONAL PLANE KNEE ALIGNMENT PHENOTYPE DOES NOT PREDICT FLEXION GAP CHARACTERISTICS FOR TOTAL KNEE ARTHROPLASTY**
» Dr. Billy Kim, Mr. Ryan Cheng, Dr. Fernando Quevedo, Dr. David Mayman, Dr. Eytan Debbi, Dr. Tony Shen
- 10:03 **Correlation Between Tibial Cortical Thickness and Volumetric Bone Mineral Density to Inform Cementless Total Knee Arthroplasty Implantation**
» Dr. Karlos Zepeda, Dr. Matthew Booth, Ms. Tsion Yared, Dr. Carmelo Burgio, Dr. Michael Ast, Dr. David Mayman, Dr. Jonathan Vigdorichik, Dr. Fernando Quevedo, Dr. Eytan Debbi
- 10:06 **IS THERE REALLY A MEDIAL PIVOT IN THE NORMAL KNEE? A ROBOTIC CADAVERIC STUDY ON 68 HUMAN SPECIMENS**
» Mr. Eik Siggelow, Mr. Marc Bandi, Ms. Iris Blatter, Prof. Sebastian Parratte, Prof. Francesco Benazzo

- 10:30 **Technology in Arthroplasty: Early Career Papers**
Room 1 & 2
Chaired by: Prof. Catherine Van Der Straeten and Prof. nico verdonschot
- 10:30 **Three-Dimension-Printed Custom-Made Prosthetic Reconstructions in Bone Tumors: A Single Center Experience**
» Dr. Raffaele Vitiello, Dr. Alessandro El Motassime, Dr. Luigi Cianni, Dr. Antonio Ziranu, Prof. Giulio Maccauro
- 10:36 **DO PATIENTS TRUST THE TECH? EXPLORING PERCEPTION, CONFIDENCE, AND KNOWLEDGE OF INNOVATIONS IN SHOULDER ARTHROPLASTY**
» Ms. Aghdas Movassaghi, Dr. Jocelyn Lubert, Ms. Elizabeth Chan, Mr. Justin Childers, Mr. Ben Lack, Dr. Clyde Fomunung, Dr. Garrett Jackson, Dr. Vani Sabesan
- 10:42 **Effects of Physiologically Relevant Loading from Patient-Derived Activities of Daily Living on the Wear of Metal on Polymer Total Hip Replacements**
» Mr. Ben Clegg
- 10:48 **THREE-DIMENSIONAL PATELLAR KINEMATICS AFTER TOTAL KNEE ARTHROPLASTY – ANALYSIS USING IMAGE-MATCHING TECHNIQUES**
» Dr. Toshiki Konishi, Dr. Satoshi Hamai, Mr. Satoru Ikebe, Dr. Shinya Kawahara, Dr. Yukio Akasaki, Dr. Takahiro Inoue, Prof. Hidehiko Higaki, Prof. Yasuharu Nakashima
- 10:54 **Data beats dogma - Valgus knees are not associated with a hypoplastic lateral femoral condyle. A CT-based analysis from a high-volume institution.**
» Dr. fabio Mancino, Dr. Joshua Twiggs, Dr. Ishaan Jagota, Dr. Brett Fritsch
- 11:00 **Evaluating the Utility and Acceptability of an AI-Powered Care Aid for Preoperative Patient Inquiries in Joint Replacement Surgery**
» Dr. Karlos Zepeda, Dr. Carmelo Burgio, Ms. Tsion Yared, Mr. Shrey Vachhani, Dr. Evan Bloom, Dr. Michael Ast, Dr. David Mayman, Dr. Jonathan Vigdorichik, Dr. Eytan Debbi



Continued from Sunday, 21 September

- 11:06 **IMPACT OF CORONAL PLANE ALIGNMENT OF THE KNEE CLASSIFICATION ON THREE-DIMENSIONAL KINEMATICS DURING GAIT AFTER TOTAL KNEE ARTHROPLASTY**
» [Dr. Takahiro Inoue](#), Dr. Satoshi Hamai, Dr. Toshiki Konishi, Dr. Shinya Kawahara, Mr. Satoru Ikebe, Prof. Yasuharu Nakashima
- 10:30 **Shoulder arthroplasty outcomes**
Room 4
Chaired by: Prof. Olivier Verborgt and Dr. Claudio Ascani
- 10:30 **INFLUENCE OF SOFT TISSUE STATUS AND REPAIRABILITY ON RECUPERATION OF INTERNAL ROTATION AND INTERNAL ROTATION STRENGTH AFTER SHOULDER ARTHROPLASTY**
» [Prof. Olivier Verborgt](#), Mrs. Anke Claes, Mrs. Annelien De Meesel, Dr. Alexander Vervaecke
- 10:36 **PREOPERATIVE WEIGHT LOSS BEFORE TSA DOES NOT IMPACT POSTOPERATIVE OUTCOMES**
» [Dr. Stephen Weber](#), Dr. Eve Glenn, Dr. Henry Fox, Dr. James Padley, Dr. Alexander Zhu, Dr. Edward McFarland
- 10:42 **Lateralization in reverse shoulder arthroplasty. An analysis of three different designs**
» [Dr. Claudio Ascani](#), Dr. Daniele Passaretti, Dr. Mauro De Cupis, Dr. Marco Scacchi
- 10:48 **MEDIALIZED VS. LATERALIZED RTSA: ELETROMYOGRAPHIC VALUES OF DELTOID AND TRAPEZIUS DURING SCAPTION**
» [Dr. Jonathan Gustafson](#), Dr. Renato Miyadahira, Dr. Matheus Vilela, Dr. Vitor Labanca, Dr. Arden Shen, Dr. Christopher Knowlton, Dr. Gregory Nicholson, Dr. Grant Garrigues

- 10:54 **THE INFLUENCE OF PREOPERATIVE RADIOGRAPHIC THORACIC KYPHOSIS ON SCAPULAR INTERNAL ROTATION EVALUATED ON CT SCANS: A RETROSPECTIVE STUDY OF 164 PATIENTS UNDERGOING REVERSE SHOULDER ARTHROPLASTY.**
» [Dr. Chiara Capperucci](#), Dr. Pietro Gregori, Dr. Mauro La Bruna, Dr. Edoardo Franceschetti, Dr. Giancarlo Giurazza, Dr. Michele Paciotti, Prof. Umile Giuseppe Longo, Prof. Rocco Papalia
- 11:00 **CLINICAL OUTCOMES IN PATIENTS UNDERGOING REVERSE SHOULDER ARTHROPLASTY FOR DISLOCATION ARTHROPATHY: A MATCHED CASE CONTROL STUDY**
» [Dr. Stephen Weber](#), Dr. Sarah Goldfarb, Dr. Laurence Okeke, Dr. Piotr Lukasiewicz, Dr. Prashant Meshram, Dr. James Padley, Dr. Edward McFarland
- 10:30 **Short Talks: KNEE OUTCOMES & PATIENT EVALUATION**
Ellisse Room 5
Chaired by: Prof. Mihalko William
- 10:30 **Comparison of Functional Outcomes Between Single-Radius and Multi-Radius Femoral Components in Primary Total Knee Arthroplasty: An Updated Meta-Analysis of Level I-II Randomized Controlled Trials**
» [Prof. Hyung-suk Choi](#)
- 10:33 **Quantifying Functional Asymmetries between Short-Term and Long-Term Post-Total Knee Arthroplasty Patients during Deep Knee Flexion Tasks using Wearable Inertial Measurement Units**
» Dr. David Ornstein, Dr. Tyler Foster, Dr. Ellen McGough, Dr. Mariusz Furmanek, [Dr. Ryan Chapman](#)
- 10:36 **DEVELOPMENT AND VALIDATION OF A NEW PATIENT-REPORTED OUTCOME MEASURE FOR PATIENTS WHO HAVE UNDERGONE TOTAL KNEE REPLACEMENT SURGERY**
» [Mr. Ram Venkatesh](#), Prof. Hemant Pandit, Dr. Sheryl O'farell, Dr. Louise Strickland, Ms. Sam Birts



Continued from Sunday, 21 September

- 10:39 **PATIENT AND SURGICAL FACTORS ASSOCIATED WITH ACHIEVING THE MEDICARE DRIVEN 20-POINT SUBSTANTIAL CLINICAL BENEFIT THRESHOLD IN PATIENT-REPORTED OUTCOMES**
» Dr. Jonathan Liu, Mr. Noah Gilreath, Mr. Mohammad Daher, Dr. Zainab Ibrahim, Mr. Amr Kaadan, Dr. Thomas Barrett, Dr. Roy Aaron, Dr. Valentin Antoci
- 10:42 **VARIABILITIES IN PAIN TRAJECTORIES FOLLOWING PRIMARY TOTAL KNEE ARTHROPLASTY SEGMENTED BY IMMEDIATE POST-OPERATIVE VALUES.**
» Dr. Eyal Kazin, Dr. Chad Cook, Dr. Joseph Brook, Dr. Karl Surmacz, Dr. Mike Anderson, Dr. William Long
- 10:45 **Impact of Medial Stabilized vs. Fixed Bearing Implant Designs on Hamstring Muscle Activation During Chair Stand-to-Sit Following Total Knee Arthroplasty**
» Ms. Nuanqiu Hou, Dr. Alexis Nelson-Tranum, Dr. Marcus Ford, Dr. Douglas Powell, Dr. Christopher Holland, Prof. Mihalko William
- 10:48 **FUNCTION-FOCUSED EXERCISE PROGRAM GUIDED BY KNEEKG IMPROVES MID-TO-LONG-TERM OUTCOMES AFTER TOTAL KNEE ARTHROPLASTY COMPARED TO STANDARD REHABILITATION**
» Dr. Pierre RANGER, Ms. Bianca MAROIS, Mr. Alix CAGNIN, Mr. Philippe LANDRY, Mr. Alex Fuentes
- 10:51 **FUNCTIONAL ACTIVITIES AND PATIENT SATISFACTION AFTER TOTAL KNEE ARTHROPLASTY FOR VALGUS KNEE**
» Dr. Shuichi Matsuda, Dr. Kohei Nishitani
- 10:54 **Preoperative Assessment for Total Knee Arthroplasty: Analysis of Rotational Alignment in the Distal Femur**
» Prof. Yong-Geun Park, Prof. Young-Ho Roh
- 10:57 **ASSOCIATION OF COMORBIDITIES, PRE-OPERATIVE ACTIVITY AND PRE-OPERATIVE PAIN WITH POST-OPERATIVE PAIN TRAJECTORIES FOLLOWING TOTAL KNEE ARTHROPLASTY**
» Dr. Joseph Brook, Dr. Eyal Kazin, Dr. Mike Anderson

- 11:00 **Patient-Reported Outcomes After Total Knee Arthroplasty: A Comparison Between Centers of Excellence and Non-COE Care Models**
» Dr. George Chimento, Dr. Miguel Jaramillo, Dr. Bhumit Desai, Dr. Jimmy Daher, Dr. Mila Hurley, Mr. Cruz Velasco-Gonzalez, Dr. Willard Moore
- 11:03 **Establishing Minimal Clinically Important Differences and Substantial Clinical Benefit Thresholds for Various Objective Gait Metrics after Unicompartmental Knee Arthroplasty**
» Dr. Roberta Redfern, Dr. Shujaa Khan, Dr. Jared Foran, Dr. Krishna Tripuraneni, Dr. Mike Anderson, Dr. Nicolas Piuze, Mr. Adam Henderson
- 11:06 **Novel Phenotypes Combining Baseline Function, Mental Health, and Physical Activity Predict One Year Improvement After Total Knee Arthroplasty**
» Dr. Shujaa Khan, Dr. Roberta Redfern, Dr. Mike Anderson, Dr. Nicolas Piuze, Mr. Adam Henderson
- 11:09 **EFFECT OF PREOPERATIVE CARBOHYDRATE LOADING ON POSTOPERATIVE RECOVERY OF INDIVIDUALS WHO HAVE TYPE 2 DIABETES AFTER TOTAL KNEE ARTHROPLASTY: A RANDOMIZED CONTROLLED TRIAL**
» Dr. Yahao Lai, Dr. Zeyu Luo, Dr. Zongke Zhou
- 11:12 **SYNOVIAL FLUID ELECTROCHEMICAL PROPERTIES ARE ALTERED BEFORE AND AFTER TOTAL KNEE ARTHROPLASTY**
» Mr. Bailey Bond, Dr. Michael Kurtz, Ms. Madison Brown, Dr. Marc Mihalko, Dr. Christopher Holland, Dr. James Guyton, Dr. John Crockarell, Prof. Mihalko William
- 11:15 **SENSOR-BASED FREE-LIVING GAIT OUTCOMES AT INTAKE ARE ASSOCIATED WITH DECLINE IN GAIT FUNCTION AND CLINICAL SYMPTOMS IN PATIENTS AWAITING KNEE ARTHROPLASTY**
» Dr. Annemarie Laudanski, Ms. Stephanie M. Civiero, Dr. Michael J. Dunbar, Dr. C. Glen Richardson, Dr. Jennifer Leighton, Dr. David. A. J. Wilson, Dr. Janie L. Astephen Wilson



Continued from **Sunday, 21 September**

11:30 **Closing ceremony & Welcome to ISTA Munich 2026**
Room 1 & 2
Chaired by: Prof. Catherine Van Der Straeten and Prof. Stefano Gumina
and Dr. Alessandro Calistri and Prof. Markus Wimmer

11:30 **Munich 2026**
» Dr. Markus Wimmer