



# ISTA2009



The 22<sup>nd</sup> Annual Congress  
of the International Society  
for Technology in Arthroplasty

Past, Present and Future  
of Arthroplasty

October 22<sup>nd</sup> - 24<sup>th</sup>, 2009

*Big Island, Hawaii*

# PROGRAM

## CME Accreditation:

**Accreditation:** This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education through the joint sponsorship of William Beaumont Hospital and ISTA. William Beaumont Hospital is accredited by the ACCME to provide continuing medical education for physicians. William Beaumont Hospital designates this educational activity for a maximum of 25 3/4 hours.

**Physicians should only claim credit commensurate with the extent of their participation in the activity.**

**Disclosure Statement:** All speakers and planners have been asked to disclose any relevant financial relationships with commercial interests and a summary of this information will be made available at the time of the meeting.

---

## Target Audience:

The Program has been designed for orthopaedic surgeons and orthopaedic researchers involved in developing new techniques and procedures in arthroplasty.

---

## Educational Objectives:

**Objective 1:**

Critically evaluate new advances in orthopaedic arthroplasty for patients needing joint replacements so that following surgery, the pain in their joints are relieved and the implanted devices are long lasting.

**Objective 2:**

Educate orthopaedic surgeons and orthopaedic researchers in relevant new developments and techniques that will assist them in their research.

**Objective 3:**

Those attending will recognize methods to improve patient outcomes through more precise surgical procedures and better surfaces for devices.

**Objective 4:**

Surgeons involved in joint replacement should improve surgical competency by the sharing research on arthroplasty procedures by leading worldwide experts.

---

## Disclaimer:

The products, procedures, and opinions presented at this Congress reflect the viewpoint or approach of the presenter only and are not to be attributed to the International Society for Technology in Arthroplasty.

We present such materials for informational and educational purposes only. This material is not intended to represent the only, nor necessarily the best methods or procedures appropriate for the medical situations discussed.

No reproduction of any kind, including audiotapes and videotapes, may be made of the presentations at the meeting. ISTA reserves all of its rights to such material and commercial reproduction is specifically prohibited.

# SPECIAL SESSIONS - KONA BALLROOM

## Thursday, October 22<sup>nd</sup>

7:00-7:05 AM Welcome by Richard D Komistek

*Session 0-A: 7:05 - 7:48 AM*

**Moderator:**  
Douglas A Dennis

### A Tribute to Three Pioneers in Arthroplasty

A1224 Tribute to Dr John Insall  
7:10-7:22 AM *Giles Scuderi*

A-1225 Tribute to Sir John Charnley  
7:22-7:34 AM *Dan Berry*

A-1226 Tribute to Hap Paul  
7:34-7:48 AM *Bargar William*

7:48-7:55 AM Introduction:Invited Presidential Guest Speaker (Allan Houston)

## Saturday, October 24<sup>th</sup>

*Open Session 7:00 - 8:00 AM*

**Moderator:**  
Richard D Komistek  
Douglas A Dennis

### CEO Roundtable Discussion

*Jeff Binder - Biomet*

*Mike Mahoney - DePuy*

*Leslie Cross - DJO*

*Mike Tuke - Finsbury*

*Joe Devivo - Smith & Nephew*

*Gary Henley - Wright Medical Technologies*

*Jeff McCaulley - Zimmer*

*Lunch Session 12:00 - 1:00 PM*

### Awards Session (Sponsored by Finsbury)

Student Biomechanics Award In Vivo Knee Kinematics: Is Ethnicity or Gender an Influencing Factor?  
12:00-12:10 PM *Filip Leszko*

Hap Paul Award New Bactericidal Allogeneic Bone Constructs Offer Clear Advantages Over Elution  
12:10-12:25 PM Technologies  
*Constantinos Ketonis*

Lifetime Achievement Award The E-Knee- Concept, Clinical Application and Data Retrieval  
12:25 PM *Clifford Colwell*

ALL SPECIAL SESSIONS ARE HELD IN THE KONA BALLROOM  
SEE ROOM MAP ON PAGE 5

## KONA

**Session 1-A: 8:00-8:55 AM**

**Orthopaedic Imaging**

**Moderators:**  
**Hani Haider**  
**Robert Booth**

**State of Orthopaedic Imaging Relative to Joint Replacement**  
*Robert Booth*

A-1207 8:00-8:15 AM

A-820 8:15-8:21 AM

A-534 8:21-8:27 AM

A-1147 8:27-8:33 AM

*J.M. Johnson, M.R. Maljoz*

A-1168 8:33-8:39 AM

A-839-8:55 AM

**Appropriate Entry Point of Intramedullary Guides for Femur in Total Knee Arthroplasty: Using Three-Dimensional Digital Templating Software "Athena"**  
*T. Iwakawa, M. Kondo, K. Yamori, M. Sato, M. Hirakawa, K. Hara, N. Kaku, Y. Higuma, T. Noguchi, H. Tamura*

**In Vitro Imaging of Living Cells with Ultrasound Intensity Microscope**  
*Eiichi Chimoto, Y. Hagiwara, Y. Saji, O. A. Ando, H. Suda, Y. Onoda, T. E. Itoi*

**Automatic Segmentation of Osteoarthritic Knee Joints in CT Volumes Using Statistical Bone Alases**  
*J.M. Johnson, M.R. Maljoz*

**Automatic Three Dimensional Distal Radius Analysis Using Statistical Atlases**  
*E. Akita-Furuta, M.R. Maljoz, L.N. Bowers*

PANEL DISCUSSION

**Session 2-A: 9:00 - 9:55 AM**

**Update on Ceramics in Total Joint Arthroplasty**

**Moderators:**  
**William Walter**  
**Pandorf Thomas**

A-1022 9:00-9:08 AM

A-592 9:08-9:16 AM

A-623 9:16-9:24 AM

A-664 9:24-9:32 AM

A-993 9:32-9:40 AM

A-1208 9:40-9:48 AM

9:48-9:55 AM

**A Minimum 2 Years Experience with Delta® AMC Ceramic Joints in THA Using Standard and Sleeved Femoral Heads**  
*J.T. Lazarewicz, A. Dhoot, H. Soriali, Y. Cui*

**Clinical Results of Ceramic/Ceramic in THR**  
*W. Capello*

**Correlating Retrieval Studies of Bloox-Delta (1.7 Years) and Bloox-Forte (1-22yrs) with Hip Simulator Wear Studies**  
*J.C. Clarke, K. Kubo, A. Lombardi, E. McPherson, A. Turnbull, A. Gustafson, D. Donaldson*

**The Squelching Hip: An Update**  
*Jonathan Garino*

**Association Between Squeaking and Implant Design and Material in Ceramic-Ceramic Total Hip Arthroplasty**  
*T.M. Ecker, C. Robbins, G. van Tilander, D. Patch, S.D. Stegmaier, W. Kurtz, B.E. Bierbaum, S.B. Murphy*

**A Prospective Duocenter Study on the Clinical and Radiological Outcome of the Multigen Plus Total Knee System with Bloox Delta Ceramic Femoral Component**  
*P. Bergschmidt, C. Lehmann, R. Bader, C. Lukas, W. Raether, W. Mittelmeier*

PANEL DISCUSSION

**Session 3-A: 10:15 - 10:55 AM**

**Knee Kinetics & Kinematics**

**Moderators:**  
**Raj Sinha**  
**Clifford Colwell**

A-682 10:15-10:25 AM

A-864 10:25-10:31 AM

A-1017 10:31-10:37 AM

A-853 10:37-10:43 AM

10:43-10:55 AM

**Knee Forces During Downhill Skiing after Total Knee Arthroplasty**  
*C. Colwell, Jr., N. Siskind, S. Patel, D. D. Luma*

**The Anatomic Rationale for Guided Motion Knees**  
*Peter Walker*

**Advanced Osteoarthritic Gait Kinematics and Kinetics**  
*D.J. Jacobsy, J.D. McCamby, M. Bhambhani-Shah, M.C. Jacoby, M.H. Shraider*

**The Influence of Muscle Load on Tibiofemoral Knee Kinematics**  
*J. Henry, L. Labeys, P. Hong, J. Bellmann*

PANEL DISCUSSION

**Session 4-A: 11:00 - 11:55 AM**

**Hip Mechanics Analyses**

**Moderators:**  
**Nico Verdonchot**  
**Hal Cates**

A-1148 11:00-11:10 AM

A-703 11:10-11:16 AM

A-851 11:16-11:22 AM

A-1136 11:22-11:28 AM

A-865 11:28-11:34 AM

A-955 11:34-11:40 AM

11:40-11:55 AM

**In Vivo Determination of THA Kinematics for Subjects Having Two Different Surgical Approaches**  
*H.E. Cates, R.E. Barrett, S.M. Zingales, M.A. Schmidt, R.D. Komisaruk, M.R. Anderik, M.R. Maljoz*

**In Vivo Assessment of Hip Kinematics During Four Activities**  
*T.J. Blumenthal, D.A. Gleser, W.L. Burgar, R.D. Komisaruk, G.D. Langston, M.R. Maljoz*

**In-Vitro And In-Vivo Investigations of the Impaction and Pull-Out Behavior of Metal-Backed Acetabular Cups**  
*A. Frische, C. Zietz, S. Tengel, W. Kolp, J. Tokar, W. Mittelmeier, R. Bader*

**The Influence of Medialisation and Lateralisation of the Femoral Head on the Forces Acting on the Hip after Total Hip Replacement**  
*C. Manders, J.M.M. New and M. Taylor*

**Asymmetric Bony Geometry at the Antero-Lateral and Postero-Lateral Femoral Head-Neck Junctions**  
*Y. Song, N.J. Giori, H. Ito, M.R. Saffrin*

**Two Different Approaches in THR: A Gait Analysis Study**  
*A. Sprazza, E. Monaco, E. M. Ferraro, C.D. Arrigo, A. Forzati*

PANEL DISCUSSION

## QUEENS

**Session 1-B: 8:00 - 8:55 AM**

**THA: Clinical Results**

A-1012 8:00-8:10 AM

A-630 8:10-8:16 AM

A-907 8:16-8:22 AM

A-1189 8:22-8:28 AM

A-906 8:28-8:34 AM

A-790 8:34-8:40 AM

8:40-8:55 AM

**Computed Tomographic Evaluation of a Monoblock Porous Tantalum Acetabular Cup at an Average 10 Year Follow-Up**  
*S.D. Stulberg, T.C. Meyer, B. Chute, N. Szilag*

**Long-Term Results of Cemented Primary Total Hip Arthroplasty for Dysplasia, with Structural Autograft Fixed with PLLA Screws**  
*K. Goto, H. Hiyama, K. Kawakubo, K. Sato, T. Nakamura*

**19 To 22 Years Clinical Results of BBCC Cemented Total Hip Arthroplasty with Alumina Ceramic Head Combined with Polyethylene Cup**  
*H. Onishi, H. Onishi, Jr., S.C. Kim, K. Yamamoto, M. Yamamoto, M. Ueno*

**Mid-Term Results of Hybrid Total Hip Arthroplasty for Treatment of Osteoarthritis Secondary to Developmental Dysplasia of Hip-Chinese Experience**  
*Bin Shen, Jing Yang, Lina Hong, Z. Zhou, Peng-Da Kang, Guo-Yang Pei*

**Straight Cementless Stem in THA: 196 Patients Followed for 10-12 Yrs**  
*G. Gasparini, G. Maccarielli, F. De Santis*

**Revision Total Hip Arthroplasty with a Modular Tapered Distal Fixation Stem: A Five to Ten-Year Follow-Up**  
*Is Park, W. Moon, S.J. Lim, J.H. Kim*

PANEL DISCUSSION

**Session 2-B: 9:00 - 9:55 AM**

**TKA: Patellar Issues**

A-1063 9:00-9:10 AM

A-1175 9:10-9:16 AM

A-1074 9:16-9:22 AM

A-904 9:22-9:28 AM

A-559 9:28-9:34 AM

A-686 9:34-9:40 AM

9:40-9:55 AM

**The Effect of Patellar Eversion to the Extension and Flexion Gaps in Total Knee Arthroplasty**  
*S. Takai, N. Shimazaki, N. Nakachi, H. Mitsuyama, Y. Konaga, T. Matsushita, N. Yoshino*

**Early Clinical Outcomes of Modular Bicompartment Arthroplasty**  
*J.H. Lauer, T. John, M.A. Cowdell*

**The Avon Patellofemoral Arthroplasty: Average 5 Year Results from an Independent Centre**  
*M. Odumwena, M.F. Costa, S.J. Kirkler, N. Pearson, J. Achon*

**Should the 'No Thumb' Technique be the Golden Standard for Evaluating Patellar Tracking in Total Knee Arthroplasty?**  
*WooShin Cho, Younsuck Yeom, Byungkwon Kim, Jcho Woo, Hyeonun Park*

**The Patellar Clunk Syndrome: Risk Factors Compared in Three Different Knee Prostheses**  
*M.E. Hutchins, M. Peussac, J.P. Fourtounne*

**Control-Matched Evaluation of Patellar Crepitus in Total Knee Arthroplasty**  
*D.H. Dennis, R.M. Kim, D.R. Johnson, B.D. Springer, T.K. Feiring, P.J. Bullenker, P.J. Lee, M.I. Baldwin*

PANEL DISCUSSION

**Session 3-B: 10:15 - 10:55 AM**

**THA: Component Orientation and Surgical Accuracy**

A-861 10:15-10:25 AM

A-902 10:25-10:31 AM

A-995 10:31-10:37 AM

A-988 10:37-10:43 AM

10:43-10:55 AM

**Improving the Accuracy of Acetabular Component Orientation: Techniques to Avoid Malposition**  
*J.T. Moskale, S.G. Capps*

**Assessment of Discrepancy Between Image-Free Navigated Acetabular Cup Orientation and 3-Dimensional Reconstructed CT-based Measurements in Asian Patients**  
*Kwang-Jae Oh*

**Accuracy of CT-based Computer-Assisted Total Hip Arthroplasty**  
*S.D. Spelscher, M. Tamara, J. Kovari, G. Zheng, K.J. Subramanian, S.B. Murphy*

**The Lewinneck-Sacrum Angle: A New Concept to Optimize THA Planification and Navigation According to Standing and Sitting Positions**  
*J.T. Lazarewicz, M.A. Roussseau, A. Rangeli, Y. Catonne*

PANEL DISCUSSION

**Session 4-B: 11:00 - 11:55 AM**

**Effects of Wear Debris**

A-1152 11:00-11:10 AM

A-725 11:10-11:16 AM

A-756 11:16-11:22 AM

A-598 11:22-11:28 AM

A-536 11:28-11:34 AM

A-935 11:34-11:40 AM

11:40-11:55 AM

**Comparison of MRI Detection of Particle Disease with Computerized Measurement of Polyethylene Wear**  
*A.S. Ranawat, T.W. Koob, J.H. Koening, H.J. Cooper, L.F. Foa, T.G. Porter, C.S. Ranawat*

**Delayed Reaction of Metal-on-Metal Bearings in Total Hip Replacement (THR) After 12 Years Follow-Up**  
*P. Roesch, W. Huber, R. Legenstein*

**Advanced Microscopy of Alumina-on-Alumina Hip Prostheses: In-vivo and In-vitro Particle Debris Analysis and Biological Response of MoIis™ Acetabular Cup Wear Debris**  
*P. Zang, W.M. Raudolph, B.J. Jackson, T.D. Stewart*

**In Vivo Comparison of Wear Particles Between Oxidized Zirconium and Cobalt-Chrome Femoral Components in the Same Design of TKAs**  
*Y-H Kim, J-S Kim, H-S Inoh, K-H Lee*

**Biocative Bone Cements Containing Micron-Sized Titania Particles**  
*T. Nakamura, C. Fukuda, M. Imamura, K. Goto, T. Kokubo*

PANEL DISCUSSION

## KINGS

**Session 1-C: 8:00 - 8:55 AM**

**Total Shoulder Arthroplasty**

A-633 8:00-8:06 AM

A-1130 8:06-8:12 AM

A-1192 8:12-8:18 AM

A-615 8:18-8:24 AM

A-1112 8:24-8:30 AM

A-1064 8:30-8:36 AM

8:36-8:55 AM

**Metal Proximal Radius Endoprostheses: The Stanmore Experience**  
*K. Gokagra, R.G. Spingeborg, M.R. Parvati, J. Miles, S.R. Cannon, T.H.R. Briggs*

**Shoulder Arthroplasty for the Treatment of Complex Proximal Humeral Fractures with Open-End Acromioclavicular Approach: A Clinical and Functional Evaluation by Using a Motion Analysis System**  
*R. Accetta, A. Meersmann, L. Monti, F. Inascetti, G. Minico*

**Radiological Outcome of Reverse Shoulder Arthroplasty for Acute Complex Proximal Humeral Fractures in Elderly Population with a 1 to 15 Year Follow-Up**  
*J.F. Cavacione, Y. Hassan, A. Hildani, F. Kermad, A. Brunel*

**Humeral Resurfacing Emarthroplasty: Our Two Years Experience (Preliminary Report)**  
*M. Attilo, A. Pisan, G. Maccamaro, G. Arrabito*

**Functional and Imaging Outcomes with Hemiarthroplasty for Anatomic Reconstruction in Acute Fractures of the Humeral Head**  
*R. Russo, M. Ciccarelli, L. Veringaglia Lombardi, F. Cantore, G. Giudice*

**Effect of Concomitant Latissimus Dorsi Transfer on Joint Reaction Force for Reverse Total Shoulder Arthroplasty**  
*M.L. Hansen, W.J. Ciccone II, M.C. Jacoby, A. Jazczynski, A. Boyles, J.C. Otis*

PANEL DISCUSSION

**Session 2-C: 9:00 - 9:55 AM**

**Total Knee Arthroplasty: Poupouri**

A-648 9:00-9:06 AM

A-600 9:06-9:12 AM

A-1010 9:12-9:18 AM

A-589 9:18-9:24 AM

A-781 9:24-9:30 AM

A-854 9:30-9:36 AM

A-665 9:36-9:42 AM

9:42-9:55 AM

**Pattern of Peri-Prosthetic Osteolysis After Total Knee Arthroplasty in Patients with Rheumatoid Arthritis: Computed Tomography Study at Minimum 10-Year Follow-Up**  
*N. Kitamura, K. Inabiki, K. Sasaki, E. Kondo, K. Yasuda*

**A Novel Method for Femur Resection in TKA: In Vitro Comparison and In Vivo Follow-Up**  
*W. Hujajum, S. Liu, Y. Xue*

**The Use of Porous Tantalum for Bone Loss in Revision Total Knee Arthroplasty: A Minimum Two-Year Follow-Up**  
*P.J. Long and G.R. Scuderi*

**Long Term Evaluation of the PCL-A Clinical and Radiological Study**  
*Abshok Rajgopal*

**Mid-Term to Long-Term Follow-Up of Infected Total Knee Arthroplasty**  
*V. Anand, M.J. Phillips, V. Anand, Jr., K.J. Krakow*

**Minimally Invasive Unicompartmental Hemiarthroplasty: A 5 To 9 Year Follow-Up Study of the Unspace Implant**  
*R.H. Haddock, S. Puri*

**Quadriceps-Sparing, Minimal-Incision Total Knee Arthroplasty, a Comparative Study: Two-Year Follow-Up**  
*CC Lee, W.P. Lin, J.C. Hong, CC Jiang*

PANEL DISCUSSION

**Session 3-C: 10:15 - 10:55 AM**

**Fixation: Theory and Practice**

A-693 10:15-10:21 AM

A-1094 10:21-10:27 AM

A-823 10:27-10:33 AM

A-660 10:33-10:39 AM

A-1062 10:39-10:45 AM

10:45-10:55 AM

**Finite Element Analysis of Cement-Bone Interface Micromechanics: The Effect of Cement Penetration Depth**  
*D. Janssen, D. Weamakers, K.A. Mann, N. Verdonchot*

**Relationship Between Stress of Finite Element Studies and Bone Mineral Density in the Femur After Total Hip Arthroplasty**  
*H. Ike, Y. Inaba, N. Kobayashi, N. Iwamoto, T. Ishida, Y. Yukiwawa, C. Ito, C. Hyomura and T. Saito*

**Experimental and Finite Element Corroboration of the Mechanical Behavior of a Cementless Hip Replacement**  
*H. Ozgur, A.H.J. Jones, S.I. Evans, P.B. Nair, M. Browne*

**Safe Zone for Transacetabular Screw Fixation in Prosthetic Acetabular Cup Reconstruction of High-Riding Hips**  
*Q. Liu, Y. Zhou, H. Xu, J. Tang, S. Guo, Q. Tang*

**Biologic Fixation of an Asymmetric Titanium Particle Porous Coating in a Load-Bearing Animal Model**  
*D.H. Haer, M. Williams, R. Moss, K. Butcher, M. Anderson, R. Milner, C. Allyn, J. Gilmore, M. Scott*

PANEL DISCUSSION

**Session 4-C: 11:00 - 11:55 AM**

**Short Stems in THA**

A-627 11:00-11:06 AM

A-847 11:06-11:12 AM

A-1190 11:12-11:18 AM

A-827 11:18-11:24 AM

A-1035 11:24-11:30 AM

A-596 11:30-11:36 AM

11:36-11:55 AM

**Short Stems: Are They Safe?**  
*J.P. Frenkel, P. Walker*

**Stress Evaluation of Stemless, Ultra-Short and Short Stem Proximal Fill Femoral Implants**  
*R.C. Takamoto, S. Arno, N. Kinarivakula, C. Chan, D. Hennessy, N.Q. Nguyen, P.S. Walker, J. Vetro*

**Influence of Stem Length on the Insertion Path in THR**  
*T. Lovell, W. Hecack, S. Kreuzer, P. Merritt, M. Nogler, L. Puri, T. Wuestemann, A. Bastian*

**Does Size Matter? Osseointegration in a Short Stem Femoral Prosthesis as Predicted by a Mechanoregulatory Algorithm**  
*P.K. Puthumangalpy, M. Browne, A. New*

**Metaphyseal Engaging Short Stem Femoral Implants: A Two-Year Follow-Up**  
*A. Pätz, S. Willberg*

**Total Hip Arthroplasty Using a Short Stem Femoral Component**  
*S. Kamada, M. Naito, Y. Nakamura, T. Teramoto, A. Ibayama, H. Karashima, K. Kinoshita, Y. Tamaki, K. Iida, D. Kusuda*

PANEL DISCUSSION

## KONA

Session 5-A: 1:00 - 1:55 PM

### TKA: Experience and Design Factors

- A-1209 1:00-1:10 PM A Personal Journey Through the Development of TKR from 1970 to Today  
*C S Ranawat*
- A-684 1:10-1:16 PM Does Implant Design Affect Knee Flexion? A Simultaneous Bilateral TKA Randomized Controlled Trial  
*MD Dennis, DR Heckin, J Murphy*
- A-727 1:16-1:22 PM Long Term Durability in Deep Flexion Knee with Bi-Surface Knee Arthroplasty  
*S Nakamura, M Kobayashi, F Ito, Y Yoshitomi, R Imai, K Nakamura, T Ueo, T Nakamura*
- A-1089 1:22-1:28 PM The Effect of Modem Total Knee Arthroplasty on Muscle Balance at the Knee  
*WJ Bjorck, FM Iyeg, DM Loveland, CH Flowers*
- A-693 1:28-1:34 PM Knee Design and Surgical Technique Significantly Reduce Lateral Retracular Release Rates in Primary Total Knee Arthroplasty  
*AV Lombardi Jr., KI Berend, JB Adams*
- A-678 1:34-1:40 PM The Use of Extended Extensor Mechanism Allograft in Revision TKA with Significant Tibial Bone Loss  
*JC Finch, LG Morawa, R Ramakrishnan*

PANEL DISCUSSION

Session 6-A: 2:00 - 2:55 PM

### Hip Resurfacing: Influencing Factors, Outcomes and Concerns

- A-931 2:00-2:10 PM The Influence of Component Size on the Outcome of Hip Resurfacing  
*WJ Walker, A Shimmin*
- A-850 2:10-2:16 PM Performance of the Resurfaced Hip: The Influence of Prosthesis Size and Positioning on Remodeling and Fracture of the Femoral Neck  
*AS Dickinson, M Browne, JC Taylor*
- A-1156 2:16-2:22 PM Hip Resurfacing Arthroplasty: The Effect of Anterior and Posterior Notching on Fracture Resistance  
*GA Higgins, Z Morrison, M Olson, EH Schenck*
- A-940 2:22-2:28 PM Hip Geometry And Modular Neck in Hip Arthroplasty  
*JAN Argenson, S Parratte, JM Aubaniac*
- A-910 2:28-2:34 PM Mid- to Near-Hip Resurfacing in Young Patients: The Role of Femoroacetabular Impingement  
*CM Magrino, TM Saylor, KH Jinnah*
- A-1120 2:34-2:40 PM Clinical Results of the Hip Resurfacing Arthroplasty for Osteonecrosis of the Femoral Head Hem-Resurfacing  
*T Kubota, T Maeda, T Muroo, K Tanaka, H Yoshida, Y Kajino, T Horii, S Tegishita, K Tomita*

PANEL DISCUSSION

Session 7-A: 3:00 - 3:55 PM

### Total Hip Arthroplasty

- A-898 3:00-3:10 PM Large Femoral Heads in Primary Total Hip Arthroplasty Reduce Dislocation  
*B Lombardi Jr, KR Berend, JB Adams*
- A-1203 3:10-3:16 PM Hard to Hard Bearing: Actuality, Perspectives, Complications  
*A Palermo, G Calafore, M Rossetti, R Simonetti*
- A-839 3:16-3:22 PM A Novel Computational Tool for the Analysis Of Implant Positioning Effects in Cementless Total Hip Replacements  
*MT Bah, PB Nair, M Browne*
- A-862 3:22-3:28 PM Total Hip Replacement: Effects of Body Mass Index, Acetabular Morphology, and Bone Quality on Stresses Developed in Cement Mantles  
*JMS Lamvohce, B Moutanah, P Ingle, JK Dowell, K Cheah*
- A-863 3:28-3:34 PM Proximal Femur Morphology as a Basis for Hip Stem Design: Age and Gender Related Effects  
*B Grimm, T Boymans, JC Heyligers*
- A-771 3:34-3:40 PM Incidence of Version Change in Primary THA with a Modular Femoral Component  
*R Knäuper, DJ Dennis, J Polin*
- A-1059 3:40-3:46 PM Total Hip Arthroplasty following Acetabular Fracture  
*MA Swanson, C Schwam, F Gotschalk, R Bucholz, MH Htoo*

PANEL DISCUSSION

POSTER SESSION

ADJOURN

## QUEENS

Session 5-B: 1:00 - 1:55 PM

### Risk Factors in Arthroplasty

- A-1095 1:00-1:10 PM Aspirin Versus Warfarin for Venous Thromboembolism (VTE) Prophylaxis Among Patients Receiving Elective Total Hip or Knee Joint Replacement: An Observational Study (ANP Study)  
*SC Walker, K Berin, JM Stevens, K Samadpour, J Hickman, R Hausman, RS Evans, JF Lloyd, P Dechert, CG Elliott*
- A-713 1:10-1:16 PM Deep Venous Thrombosis and Pulmonary Embolism Following Total Joint Arthroplasty in High Risk Patients  
*J Kuder, T Kowalski, L Puri*
- A-863 1:16-1:22 PM Timing of Symptomatic Pulmonary Emboli Following Total Hip and Total Knee Arthroplasty: Are We Aiming at the Wrong Target?  
*NP Jain, M Grameri, M Polavarapu, SD Stulberg*
- A-911 1:22-1:28 PM Risk Factors of Infection After Total Knee Arthroplasty  
*G Suzuki, S Saito, T Ishii, S Mori, S Moriguchi, J Ryu*
- A-1129 1:28-1:34 PM Analgesic Effect of EMG-Guided Single Injection Femoral Nerve Block Before Total Knee Arthroplasty  
*SD Cho, YS Youm, CY Jung, CH Hwang*
- A-1220 1:34-1:40 PM Rotating Hinge Knee Reconstruction Incorporating an Irremovable Tibial Nail  
*WJ Ward, Sr., J Cooper, W Salem*

PANEL DISCUSSION

Session 6-B: 2:00 - 2:55 AM

### Knee Mechanics

- A-1143 2:00-2:10 PM Computational Tools for Design Phase Evaluation of Total Knee Replacement Kinematics  
*MA Baldwin, C Clary, LP Maloney, PJ Rullkoetter*
- A-1025 2:10-2:16 PM Chair Engagements and UHMWPE Wear Performance  
*J Yi, QJ Hong, J Khan*
- A-885 2:16-2:22 PM How Do Patients Walk with a TKA?  
*M Bercoy, D Haselmeier, S Delavert, N Legend, M Zimmermann*
- A-695 2:22-2:28 PM Influence of the Cruciate Ligaments Excision on the Dynamic Gap Kinematics: A Cadaveric Model  
*R Nagamine, D D Lima, S Paul, W Chen, K Kaneda, M Tada, T Harai, Y Sugimoto*
- A-812 2:28-2:34 PM In Vivo Kinematics of Rotating Platform Mobile-Bearing Total Knee Arthroplasty During Squat Motion  
*M Kurita, T Tomita, K Futai, T Yamazaki, Y Kamegizu, M Tamaki, M Shimizu, M Ikawa, H Yoshikawa, K Sugimoto*
- A-852 2:34-2:40 PM Mobile-Bearing Kinematics in PCL-Retaining Total Knee Arthroplasty: A Study of 51 Cases  
*J Chouhan, JJ Lerat, R Testa, B Moya, MH Fessy, SJ Banks*

PANEL DISCUSSION

Session 7-B: 3:00 - 3:55 PM

### Preoperative Evaluation and Clinical Results of TKA

- A-862 3:00-3:10 PM Preclinical Evaluation of Total Knee Designs for Restoring Normal Knee Mechanics  
*PS Walker, DJ Cleary, JH, G Hildrum*
- A-1210 3:10-3:16 PM Long Term Clinical and Radiological Results of TKA - 10 to 27 Year Follow-Up  
*B Dae-Kyung*
- A-707 3:16-3:22 PM How to Handle and Balance Soft Tissues in Total Knee Replacement? Present Techniques Including Reconstructions  
*JL Brard, P Throckmoller, G Lin*
- A-772 3:22-3:28 PM Early Clinical Results of Mobile-Bearing Revision Total Knee Arthroplasty  
*MH Kim, DJ Dennis, CC Tang, BD Hais*
- A-738 3:28-3:34 PM Comparison of Clinical Results According to Joint Line Change Using Navigation-Assisted Mobile Bearing Cruciate Retention Type TKA  
*JH Tang, JG Seo, MH Kim, T Moon, JG Kim*
- A-1123 3:34-3:40 PM Early Results of the Posterior Cruciate Referencing Technique and Posterior Sloped Tibial Inserts on Total Knee Arthroplasty  
*DJ Covall, B Stulberg, J Mayberry*

PANEL DISCUSSION

POSTER SESSION

ADJOURN

## KINGS

Session 5-C: 1:00 - 1:55 PM

### The Diseased Joint: Non Arthroplasty Options

- A-602 1:00-1:10 PM Closed Wedge Hip Tibial Osteotomy Using Computer Assisted Surgery Compared to the Conventional Technique  
*DK Bae, KH Yoon, SJ Song, MC Shin, HH Yoo, MJ Park, HJ Cho, JH Choi*
- A-653 1:10-1:16 PM Functional Outcomes of Bilateral Hip Necrosis: Total Hip Arthroplasty Versus Extracorporeal Shockwave  
*CT Wang, JH Chen, SJ Hsu, YH Wang, YJ Chou*
- A-599 1:16-1:22 PM Analysis of Long-Term Effect of Arterial Perfusion of Drugs and Bone Marrow Stromal Cells on Osteonecrosis of Femoral Head  
*PJ Yong, SY Zhang, HT Jm, L Chen, WF Ji, J Li*
- A-1047 1:22-1:28 PM Treatment of the Sequelae of Slipped Capital Femoral Epiphysis Using Cuneiform Osteotomy of the Femoral Neck Through Surgical Hip Dislocation  
*YF Shou, S Biswal, NB Girimaji*
- A-719 1:28-1:34 PM Transchocante Rotational Osteotomy for Nontraumatic Osteonecrosis of the Femoral Head in Young Adults  
*P Zhang, J Besomi, J Joyce, J Lora, C Melia, L Moya*
- A-848 1:34-1:40 PM Early Clinical Evaluation of a Contoured Focal Resurfacing Prosthesis System (Hemiacapacog) in UK Patients  
*KI Hagiokawa, N Ito, R Thakkar, H P Varma*

PANEL DISCUSSION

Session 6-C: 2:00 - 2:55 PM

### Fracture Management

- A-625 2:00-2:06 PM Impact Load Test Model for Femoral Press-Fit Design Optimization in Uncemented THAat Minimum 10-Year Follow-Up  
*J Fuchs, W Shelds, W Schmidt, J Liepins, J Racemelli*
- A-704 2:06-2:12 PM Our Experience in the Treatment of Periprosthetic Fractures Using Three Different Types of Locked Plates: A Clinical and Biomechanical Study  
*R Valentin, B Martelli*
- A-686 2:12-2:18 PM New Surgical Treatment Using Docking Nail for Periprosthetic Femoral Fracture After Total Hip Replacement  
*S Nakano, T Kosuda, N Yamamura, T Chikawa, Y Tabei, T Shimabara, A Minato, T Imai, M Sugino*
- A-869 2:18-2:24 PM Large Diameter Femoral Head Uncovered Total Hip Replacement to Treat Fractured Neck of Femur  
*MI Onari, AJ Barret, BJ Burston, J Abud, G Gillespie, B Squires, R Ramakrishnan*
- A-914 2:24-2:30 PM Increased Risk of Preoperative Severe Bone Defects and Perioperative Fractures of the Steroid-Laden Rhea-reated Patients Undergoing Total Hip Arthroplasty  
*M Takagi, S Kobayashi, K Suzuki, Y Takakubo, H Kawaji, Y Tamaki, M Ishi*
- A-698 2:30-2:36 PM Management of Failed Internal Fixation of Trochanteric Hip Fractures Using Cementless Modular Hip Arthroplasty  
*R Thakur*
- A-900 2:36-2:42 PM Committuted Radial Head Fractures: To Fix or Replace?  
*KF Mohammed*

PANEL DISCUSSION

Session 7-C: 3:00 - 3:42 PM

### Minimally Invasive THA

- A-687 3:00-3:06 PM Avoiding Major and Minor Pitfalls of Two-Incision Total Hip Arthroplasty  
*AC Halesoski, KC Sheridan, RS Palanis*
- A-1046 3:06-3:12 PM Predicting Difficulty of Femoral Preparation in the Direct Anterior Approach to the Hip  
*S Kreuzer, JJ Stulberg*
- A-795 3:12-3:18 PM Acetabular Cup Positioning in Hip Replacement Surgery: A Comparison of Three Different Approaches in Total Hip Arthroplasty  
*H Watanabe, M Maruhashi, M Hirashi, R Yoneda, J Otsuka, S Koh, T Aoki, H Inoue, E Horii and Y Oama*
- A-638 3:18-3:24 PM A Comparative Study of Total Hip Arthroplasty by the Direct Anterior Approach with Total Hip Arthroplasty by Posterior Approach  
*M Kawasaki, Y Tamai, T Fujiyoshita, T Takemoto*
- A-680 3:24-3:30 PM Minimal Invasive Revision Surgery with Modular Neck Adaptors (Ecoal)  
*J Croce, M Omani, P Dhorschuk*
- A-1131 3:30-3:36 PM Conservative Posterolateral Approach to Hip: Evaluation of 500 Cases  
*GP Khudat, P Pace, D Capitani*

PANEL DISCUSSION

POSTER SESSION

ADJOURN

Moderators:

**Jess Lonner**  
**Kim Bertin**

Moderators:

**Joseph Fetto**  
**Chitranjan Ranawat**

Moderators:

**Mike Tuke**  
**William Walter**

Moderators:

**Kenneth Krackow**  
**Raymond Kim**

Moderators:

**Riyaz Jinnah**  
**Paul Rullkoetter**

Moderators:

**Phil Noble**  
**Adolph Lombardi**

Moderators:

**Ray Wasilewski**  
**Stephen Murphy**

## KONA

Session 8-A: 7:00-7:55 AM	Moderators:	Session 8-B: 7:00-7:55 AM	Moderators:
<b>UKA: Clinical Results and Techniques</b>	<b>Michael Conditt</b> <b>Jean-Noel Argenson</b>	<b>Managing Deformities</b>	<b>Chitranjan Ranawat</b> <b>Ken Krakow</b>
A-1211 7:00-7:10 AM A-565 7:10-7:16 AM A-1043 7:16-7:22 AM A-1038 7:22-7:28 AM A-9372 7:28-7:34 AM A-1070 7:34-7:40 AM 7:40-7:55 AM	My Experience with Unicompartimental Arthroscopy <i>JV Argenson, S Ferrante, M Aubert</i> ACL Reconstruction Does Not Improve the Short Term Result of Oxford Medial Unicompartimental Knee <i>M Hida, K Inai, H Ishida, S Takei, S Taketoku, Y Masui, K Yoshida</i> Is Unicompartimental Knee Replacement More Accurate with Robotic Assistance <i>N Dunbar, AD Pearce, D Kennedy, M Condit, SA Banks</i> Accuracy of Robotically Assisted UKA <i>TM Coon, MD Driscoll, S Horowitz, M Condit</i> Computed Tomography Topographic Mapping of Subchondral Density (CT-TOMASD) for Unicompartimental Knee Arthroscopy Pre-Operative Planning <i>JD Johnson, SE Kulkarnishtha, DJ Hamer, DA Wilson, BA Masri</i> Early Clinical Outcomes of Robotic-Assisted UKA Compared with Conventional Manual Only Components <i>J Kijyo, S Horowitz, M Condit</i>	Using Knee Navigation to Plan and Execute Deformity Management <i>A Mittiga, GH Shery</i> Computer Assisted Total Knee Arthroplasty for Arthritis with Extra-Articular Deformity <i>L Puri, XH Shuh, G Shrinivasar</i> Computed Tomography-Based Navigation for Placement of the Acetabular Component in Total Hip Arthroplasty for Severe Acetabular Deformity <i>Y Kajino, T Kabata, T Murota, T Murota, Y Yoshida, K Tanaka, K Tomita</i> Navigated TKA for Japanese Deformed Knee <i>K Kanetsuki, K Yokoyama, Y Mitsui, T Katsuda, K Nagata</i> Total Knee Replacement in Patients with Fixed Flexion Deformity of Over 30° <i>RK Sharma, Y Kumar, R Kumar, S Agrawal</i>	

Session 9-A: 8:00-8:55 AM	Moderators:	Session 9-B: 8:00-8:55 AM	Moderators:
<b>Mechanics and Mechanisms of the Knee</b>	<b>Peter Walker</b> <b>Jan Victor</b>	<b>Should I Use Navigation?</b>	<b>Arun Mullaigil</b> <b>Suichi Matsuda</b>
A-949 8:00-8:10 AM A-902 8:10-8:16 AM A-804 8:16-8:22 AM A-1069 8:22-8:28 AM A-669 8:28-8:34 AM A-974 8:34-8:40 AM 8:40-8:55 AM	A Common Reference Frame for Describing Rotation of the Distal Femur <i>J Hagar, D Van Dierck, L Labig et al.</i> Tracking Back in Vivo Wear Kinematics from the Surface of Retrieved UHMWPE Tibial Components by Means of Polarized Raman Spectroscopy <i>Y Takahashi, G Pizzatti, A Kakimoto, N Sugano</i> Posterior Cruciate Ligament Recruitment Affects Flexion Gap Dynamics During Gap Distraction in Total Knee Replacement <i>PJC Heesterbeek, NJF Kalkers, N Verdonschot, AB Wymenga</i> Comparison of Osteoarthritic Knee Patients Analyzed In Vivo with and without a Knee e During Step Up and Step Down Activities <i>MJ Kohn, MR Malinz, MR Andriac, DJ Dennis, D Nachtrab</i> Automated Image Registration Method for Three-Dimensional Analysis of Entire Lower Extremity Alignment and Implant Position Using Bi-Plane Radiography <i>K Kobayashi, M Sakamoto, Y Tanabe, T Sato, A Ariami, G Omori, Y Koga</i> Influence of Posterior Condylar Cartilage Thickness on Rotational Alignment of the Femoral Component in Total Knee Arthroplasty <i>T Fujita, M Konata, K Tomari, H Kitagawa, Y Kadaya</i>	Efficacy of Computer Navigation in Total Knee Arthroplasty <i>S Mizumoto, H Mitsuuchi, H Hirata, T Yamano</i> Total Knee Arthroplasty with and without Computer Navigation: Real Advantages in a Prospective Randomized Controlled Study <i>A Masui, GS Bellina</i> Accuracy and Reproducibility of Posterior Slope Alignment in Primary Total Knee Replacement Using Extra-Medial Tibial Uls and Computer Navigation <i>Ch Fregoso, J Rangasai, P Kuck, E Schenck, JP Waddell</i> Computer-Assisted Navigation in Hip Resurfacing: Learning Curve in the Hands of an Experienced Hip Surgeon <i>JA Shields, TM Taylor, CM Maguire, RP Jimah</i> Posterior Cruciate Ligament Sparing, Cruciate Substituting, Cruciate Sacrificing and <i>M Swank</i> Navigated Revision Total Knee Replacement: A Comparative Study with Conventional Instruments <i>JL Berry</i>	

Session 10-A: 9:00-9:55 AM	Moderators:	Session 10-B: 9:00-9:55 AM	Moderators:
<b>Update on Alternative Bearings in THA</b>	<b>Daniel Berry</b> <b>Thomas Blumentfeld</b>	<b>Factors Affecting Total Hip Arthroplasty</b>	<b>William Capello</b> <b>Ian Clarke</b>
A-1212 9:00-9:10 AM A-830 9:10-9:16 AM A-916 9:16-9:22 AM A-1222 9:22-9:28 AM A-897 9:28-9:34 AM A-890 9:34-9:40 AM 9:40-9:55 AM 10:00-10:15 AM	Metal on Metal Hip Arthroplasty: Where Are We in 2009? <i>D Berry</i> In Vitro Lymphocyte Assay for Hypersensitivity to Metals During the First Two Postoperative Years Using Two Different Resurfacing Hip Arthroplasties <i>A Borgwardt, S Ribic-Madsen, L Borgwardt, B Zerklin, L Borgwardt</i> Metal Transfer Commonly Found on Retrieved Ceramic Heads Can Occur with Single Rim Contact During Surgery <i>JH Corrier, JM Tamek, BH Corrier, JC Huan, MB Meyer, DW Van Citters</i> Ceramic-on-Ceramic THA: My Experience <i>CS Ranawat</i> Outcome of Ceramic-Ceramic Total Hip Arthroplasty in Patients Younger than 50 Years <i>SD Sapsichner, TM Eckert, M Tammar, SB Murphy</i> An Alternative to Failed Ceramic-on-Ceramic Total Hip Arthroplasty - Using Metal-on-Metal <i>TR Yoon, KS Park, K Thevwarijan, Y Cho, HK Yang</i>	Deep Impaction Deformation of Total Hip Arthroplasty Acetabular Components Contribute to Early Failure? <i>JP Gannon</i> Hip Arthroplasty with a Metal-Polyethylene Bearing is Effective in Femoral Neck Fracture Patients <i>A Moroni, B Wipperfurth, W Seebert, S Mori, G Micera, R Orsini, M Hoque, S Giannini</i> A Study of Cementless Stem Stability After Hip Arthroplasty in Hemodialysis Patients <i>T Yamamoto, K Uchiyama, HJ Park, N Takahira, K Fukushima, M Suto, K Suro, K Urahe and M Itoami</i> Prevention of Venous Thromboembolism Associated with Fondaparinux Administration Following Hip Surgery in Japanese Patients <i>N Takahira, K Uchiyama, K Takahashi, T Kawamura, M Uchiyama, M Itoami</i> Stem First Method with Big Metal Head Will Decrease the Rate of Dislocation After Primary Total Hip Replacement <i>N Watanabe, Y Tanaka, H Iguchi, M Kobayashi, Y Nagaya, H Goto, M Nozaki, S Marutani, S Hasegawa, K Tanaka, T Hirada, T Ohtaka</i> The Cutaneous Anterior Pelvic Plane May Lead to Inaccuracy in Computer Assisted Total Hip Arthroplasty: In Vivo Demonstration and Cadaver Validation of an Ultrasound Method <i>S Parratte, P Kilian, T Lecroq, T Pault, P Champagnat, JN Argenson</i> Effect of Loading and Serum Proteins on the Frictional Property of Vitamin E-Containing Ultrahigh Molecular Weight Polyethylene <i>D Hamada, Y Ochiai, K Yamamoto, S Mori, K Beuchi, N Tomita</i>	

Session 11-A: 10:15-10:55 AM	Moderators:	Session 11-B: 10:15-10:55 AM	Moderators:
<b>Implant Alignment</b>	<b>David Stulberg</b> <b>Joseph Moskal</b>	<b>Ethnic and Gender Issues in Arthroplasty</b>	<b>Giles Scuderi</b> <b>Ashok Rajgopal</b>
A-1213 10:15-10:21 AM A-871 10:21-10:27 AM A-716 10:27-10:33 AM A-618 10:33-10:39 AM A-1227 10:39-10:45 AM 10:45-10:55 AM	Cadaver Validation of Computer Location of the Femoral Head Center <i>K Krakow</i> Computer Assisted Surgical Navigation (CAS) in the Knee Using Stress Tests to Assess Tibio-Femoral Stability and Patellar Tracking <i>R Strachan, F Trappier, P Konala, B Devadasan, S Chai, A American and A Ims</i> Statistical Determination of the Femoral Neck Isthmus and its Implications for Optimal Neck-Axis Alignment <i>H Enomoto, T Nakamura, S Tangamont, P Kankok, Y Fujita, A Pinyasumrit, S Suda and T Toyama</i> Obtaining High Flexion Using Standard Implants in Total Knee Arthroplasty <i>RS Mody</i> How to Improve Tibial Alignment without the Use of Navigation <i>M Shucchi</i>	A Single Total Knee Arthroplasty System with Broad Size and Constraint Options Improves Outcomes for Both Men and Women <i>Al Lombardi, Jr., KR Berend, JB Adams</i> Does Gender Explain the Variability of Patello-Femoral Morphology Observed in TKR? <i>R Gozala, B McArthur, P Noble, S Tomaly, D Owen, M Joyce, M Condit, K Mathis</i> Morphometric Measurement of Resected Surfaces of Femurs in Korean Knees: A Correlation to the Strain of Current TKR Implants <i>JH Kang, JB Kim, SJ Lyu</i> Gender-Specific Design in Total Knee Arthroplasty - Rarely Necessary For Korean Women <i>SD Cho, YS Yoon, CY Jung, KB Park</i>	

## QUEENS

Session 8-C: 7:00-7:55 AM	Moderators:	Session 9-C: 8:00-8:55 AM	Moderators:
<b>Revision THA</b>	<b>Daniel Berry</b> <b>Ramon Gustillo</b>	<b>Complication Management</b>	<b>William Bargar</b>
A-691 7:00-7:06 AM A-711 7:06-7:12 AM A-702 7:12-7:18 AM A-947 7:18-7:24 AM A-1086 7:24-7:30 AM A-767 7:30-7:36 AM A-639 7:36-7:42 AM 7:42-7:55 AM	Special Features of Surgical Revision of Ceramic-on-Ceramic Bearings: A Case Study <i>L Sader, J Dammers, R Nair, D Hammond</i> Revision Arthroplasties of Sixty Nine Cases at Philippine Orthopedic Institute (1984-2007) <i>RT Cading, RB Castillo, LJC Leangso</i> Treatment of Large Prolapsed Defects in Revision Total Hip Arthroplasty: A Cup in Cup Construct <i>TJ Blumenthal, HJ Banger</i> Acetabular Revision Using Acetabular Roof Reinforcement Ring <i>YJ Cho, KJ Kim, YS Chun, KH Rhyu, JH Song, MC Yoo</i> Revision Total Joint Arthroplasty in the Otago Region <i>BN Stubbeg, JD Zanatta</i> Pre-Clinical Results of Porous Titanium Particles in Cemented Impaction Grafting Hip Revision Arthroplasty <i>LH Haddad, R Aguirre, BH Schreurs, N Verdonschot, P Buma</i> Use of Wagner Self-Locking Slem with Allgraft for Reconstruction of Femoral Bone Defect During Revision Surgery <i>K Uchiyama, N Takahira, S Takasaki, K Fukushima, T Yamamoto, K Urahe, M Itoami</i>	Predicting Bacterial Populations Based on Airborne Particulates During Total Joint Arthroplasty <i>GW Stocks, SD Seif, B Thompson, XM Adams, DP O'Connor</i> Periprosthetic Delivery of Erythromycin in a Rat Model of Aseptic Loosening <i>W Ren, R Zhang, M Hawkins, and D Markel</i> Allogenic Bone Grafts with Covalently Tethered Antibiotics Prevent Bacterial Attachment and Biofilm Formation <i>C Adams, A Ayer, J Shapiro, J Parvizi, N Hickok</i> Optimal Duration of Continuous Femoral Nerve Block After Total Knee Arthroplasty <i>K Suzuki, S Kubo, T Matsumoto, K Ishida, K Ito, T Matsushita, M Kurosaka, R Kinoshita</i> Changes in D-Dimer Level Following Total Hip Arthroplasty <i>T Morishima, S Hirose, H Otsuka, D Hatanori, S Sawada and K Suro</i> Comparison of Direct-Exchange vs Two-Stage Revision for the Infected THA: A Markov-Value Decision Analysis <i>CF Hoell, PA Mamer, NY Gu, JN Doctor, SS Leopold</i> Monitoring of Blood Pressure During Total Hip Arthroplasty Using Interface Biocable: Cement Technique <i>UJ Fighini</i>	

Session 9-D: 8:00-8:55 AM	Moderators:	Session 10-C: 9:00-9:55 AM	Moderators:
<b>Revision THA</b>	<b>Daniel Berry</b> <b>Ramon Gustillo</b>	<b>In Vivo Kinematics</b>	<b>Dae-Kyung Bae</b> <b>Diana Glaser</b>
A-691 7:00-7:06 AM A-711 7:06-7:12 AM A-702 7:12-7:18 AM A-947 7:18-7:24 AM A-1086 7:24-7:30 AM A-767 7:30-7:36 AM A-639 7:36-7:42 AM 7:42-7:55 AM	Special Features of Surgical Revision of Ceramic-on-Ceramic Bearings: A Case Study <i>L Sader, J Dammers, R Nair, D Hammond</i> Revision Arthroplasties of Sixty Nine Cases at Philippine Orthopedic Institute (1984-2007) <i>RT Cading, RB Castillo, LJC Leangso</i> Treatment of Large Prolapsed Defects in Revision Total Hip Arthroplasty: A Cup in Cup Construct <i>TJ Blumenthal, HJ Banger</i> Acetabular Revision Using Acetabular Roof Reinforcement Ring <i>YJ Cho, KJ Kim, YS Chun, KH Rhyu, JH Song, MC Yoo</i> Revision Total Joint Arthroplasty in the Otago Region <i>BN Stubbeg, JD Zanatta</i> Pre-Clinical Results of Porous Titanium Particles in Cemented Impaction Grafting Hip Revision Arthroplasty <i>LH Haddad, R Aguirre, BH Schreurs, N Verdonschot, P Buma</i> Use of Wagner Self-Locking Slem with Allgraft for Reconstruction of Femoral Bone Defect During Revision Surgery <i>K Uchiyama, N Takahira, S Takasaki, K Fukushima, T Yamamoto, K Urahe, M Itoami</i>	In Vivo Assessment of Hip Kinematics in THA Patients with Various Bearing Surfaces: A Multi-Center Study <i>Di Glaser, DJ Dennis, RD Komisek, SJ Daerleick, MR Malinz</i> In Vivo Kinematics of Two-Component Total Ankle Arthroplasty <i>S Yamaguchi, Y Tanaka, S Kougai, T Komai, Y Shirahara, Y Taketaka, S I Banks</i> Knee Kinematics in Patients with Bilateral TKA of Two Designs During Maximum Flexion Activities <i>N Okamoto, L Breslauer, JK Hedley, S I Banks</i> Body Mass Index Comparison of Knee Kinematics for Obese, Overweight and Normal Weight TKA Subjects <i>MR Andriac, M Zingale, RD Komisek, DJ Dennis, MR Malinz</i> Comparison of In Vivo Three Dimensional Kinematics During Deep Knee Bending Between Fixed Bearing and Mobile Bearing After High-Flex Posterior Stabilized Total Knee Arthroplasty <i>K Kawahara, T Yoneda, T Yamazaki, K Fuji, N Shimizu, M Yamaki, M Maruta, Y Kamigizaki, T Hatanabe, T Shigeyoshi, H Yoshikawa, K Sugamoto</i> A Multi-center Study of In Vivo Kinematics of a Rotating Platform Posterior Stabilizing TKA Designed to Reduce Coxa-Saltus <i>RD Lewis, JKP Medendorp, JF Donald, RD Komisek, MR Andriac, M.R. Malinz</i> Correlation of 3D In Vivo Patellofemoral Kinematics with Sound Data for TKA and Non-Implanted Knees <i>F Lecco, S Zingale, JH Argenson, MR Malinz, RD Komisek</i>	

Session 11-C: 10:15-10:55 AM	Moderators:	Session 11-D: 10:15-10:55 AM	Moderators:
<b>Spine Mechanics</b>	<b>Jeffrey Taylor</b> <b>Mohamed Mairouf</b>	<b>Spine Mechanics</b>	<b>Jeffrey Taylor</b> <b>Mohamed Mairouf</b>
A-1171 10:15-10:21 AM A-1160 10:21-10:27 AM A-1183 10:27-10:33 AM A-1205 10:33-10:39 AM A-1176 10:39-10:45 AM 10:45-10:55 AM	Normal, Fused and Degenerative Conditions of the Lumbar Spine: A Comparison Study of the 3D In Vivo Mechanics <i>CB Carr, RD Komisek, JS Cheng, MR Malinz, JYW Mitchell</i> Preclinical Evaluation of a Pylorocanal Cervical Total Disc Replacement <i>SD Cook, SJ Salheld, LP Paton</i> Variability and Reproducibility of Range of Motion for Tri-Lobe vs Ball & Trough Cervical Total Disc Designs <i>BK Nguyen, JH Taylor, AS Despres, K Yamamoto</i> Therapeutic Mechanism and Practice in the Treatment of Scoliosis in Growing Children <i>Q Ye, et al.</i> The Effect of Conditionally Surface Demineralized Bone on Spinal Intervertebral Fusion <i>Al Lee, KS Lee, HJ Kim, JS Oh, JH Park, SC Nam, JB Shim, JH Jung</i>	Normal, Fused and Degenerative Conditions of the Lumbar Spine: A Comparison Study of the 3D In Vivo Mechanics <i>CB Carr, RD Komisek, JS Cheng, MR Malinz, JYW Mitchell</i> Preclinical Evaluation of a Pylorocanal Cervical Total Disc Replacement <i>SD Cook, SJ Salheld, LP Paton</i> Variability and Reproducibility of Range of Motion for Tri-Lobe vs Ball & Trough Cervical Total Disc Designs <i>BK Nguyen, JH Taylor, AS Despres, K Yamamoto</i> Therapeutic Mechanism and Practice in the Treatment of Scoliosis in Growing Children <i>Q Ye, et al.</i> The Effect of Conditionally Surface Demineralized Bone on Spinal Intervertebral Fusion <i>Al Lee, KS Lee, HJ Kim, JS Oh, JH Park, SC Nam, JB Shim, JH Jung</i>	

## KINGS

Session 8-D: 7:00-7:55 AM	Moderators:	Session 9-D: 8:00-8:55 AM	Moderators:
<b>Revision THA</b>	<b>Daniel Berry</b> <b>Ramon Gustillo</b>	<b>Complication Management</b>	<b>William Bargar</b>
A-691 7:00-7:06 AM A-711 7:06-7:12 AM A-702 7:12-7:18 AM A-947 7:18-7:24 AM A-1086 7:24-7:30 AM A-767 7:30-7:36 AM A-639 7:36-7:42 AM 7:42-7:55 AM	Special Features of Surgical Revision of Ceramic-on-Ceramic Bearings: A Case Study <i>L Sader, J Dammers, R Nair, D Hammond</i> Revision Arthroplasties of Sixty Nine Cases at Philippine Orthopedic Institute (1984-2007) <i>RT Cading, RB Castillo, LJC Leangso</i> Treatment of Large Prolapsed Defects in Revision Total Hip Arthroplasty: A Cup in Cup Construct <i>TJ Blumenthal, HJ Banger</i> Acetabular Revision Using Acetabular Roof Reinforcement Ring <i>YJ Cho, KJ Kim, YS Chun, KH Rhyu, JH Song, MC Yoo</i> Revision Total Joint Arthroplasty in the Otago Region <i>BN Stubbeg, JD Zanatta</i> Pre-Clinical Results of Porous Titanium Particles in Cemented Impaction Grafting Hip Revision Arthroplasty <i>LH Haddad, R Aguirre, BH Schreurs, N Verdonschot, P Buma</i> Use of Wagner Self-Locking Slem with Allgraft for Reconstruction of Femoral Bone Defect During Revision Surgery <i>K Uchiyama, N Takahira, S Takasaki, K Fukushima, T Yamamoto, K Urahe, M Itoami</i>	Predicting Bacterial Populations Based on Airborne Particulates During Total Joint Arthroplasty <i>GW Stocks, SD Seif, B Thompson, XM Adams, DP O'Connor</i> Periprosthetic Delivery of Erythromycin in a Rat Model of Aseptic Loosening <i>W Ren, R Zhang, M Hawkins, and D Markel</i> Allogenic Bone Grafts with Covalently Tethered Antibiotics Prevent Bacterial Attachment and Biofilm Formation <i>C Adams, A Ayer, J Shapiro, J Parvizi, N Hickok</i> Optimal Duration of Continuous Femoral Nerve Block After Total Knee Arthroplasty <i>K Suzuki, S Kubo, T Matsumoto, K Ishida, K Ito, T Matsushita, M Kurosaka, R Kinoshita</i> Changes in D-Dimer Level Following Total Hip Arthroplasty <i>T Morishima, S Hirose, H Otsuka, D Hatanori, S Sawada and K Suro</i> Comparison of Direct-Exchange vs Two-Stage Revision for the Infected THA: A Markov-Value Decision Analysis <i>CF Hoell, PA Mamer, NY Gu, JN Doctor, SS Leopold</i> Monitoring of Blood Pressure During Total Hip Arthroplasty Using Interface Biocable: Cement Technique <i>UJ Fighini</i>	

Session 9-E: 8:00-8:55 AM	Moderators:	Session 10-D: 9:00-9:55 AM	Moderators:
<b>Revision THA</b>	<b>Daniel Berry</b> <b>Ramon Gustillo</b>	<b>In Vivo Kinematics</b>	<b>Dae-Kyung Bae</b> <b>Diana Glaser</b>
A-691 7:00-7:06 AM A-711 7:06-7:12 AM A-702 7:12-7:18 AM A-947 7:18-7:24 AM A-1086 7:24-7:30 AM A-767 7:30-7:36 AM A-639 7:36-7:42 AM 7:42-7:55 AM	Special Features of Surgical Revision of Ceramic-on-Ceramic Bearings: A Case Study <i>L Sader, J Dammers, R Nair, D Hammond</i> Revision Arthroplasties of Sixty Nine Cases at Philippine Orthopedic Institute (1984-2007) <i>RT Cading, RB Castillo, LJC Leangso</i> Treatment of Large Prolapsed Defects in Revision Total Hip Arthroplasty: A Cup in Cup Construct <i>TJ Blumenthal, HJ Banger</i> Acetabular Revision Using Acetabular Roof Reinforcement Ring <i>YJ Cho, KJ Kim, YS Chun, KH Rhyu, JH Song, MC Yoo</i> Revision Total Joint Arthroplasty in the Otago Region <i>BN Stubbeg, JD Zanatta</i> Pre-Clinical Results of Porous Titanium Particles in Cemented Impaction Grafting Hip Revision Arthroplasty <i>LH Haddad, R Aguirre, BH Schreurs, N Verdonschot, P Buma</i> Use of Wagner Self-Locking Slem with Allgraft for Reconstruction of Femoral Bone Defect During Revision Surgery <i>K Uchiyama, N Takahira, S Takasaki, K Fukushima, T Yamamoto, K Urahe, M Itoami</i>	In Vivo Assessment of Hip Kinematics in THA Patients with Various Bearing Surfaces: A Multi-Center Study <i>Di Glaser, DJ Dennis, RD Komisek, SJ Daerleick, MR Malinz</i> In Vivo Kinematics of Two-Component Total Ankle Arthroplasty <i>S Yamaguchi, Y Tanaka, S Kougai, T Komai, Y Shirahara, Y Taketaka, S I Banks</i> Knee Kinematics in Patients with Bilateral TKA of Two Designs During Maximum Flexion Activities <i>N Okamoto, L Breslauer, JK Hedley, S I Banks</i> Body Mass Index Comparison of Knee Kinematics for Obese, Overweight and Normal Weight TKA Subjects <i>MR Andriac, M Zingale, RD Komisek, DJ Dennis, MR Malinz</i> Comparison of In Vivo Three Dimensional Kinematics During Deep Knee Bending Between Fixed Bearing and Mobile Bearing After High-Flex Posterior Stabilized Total Knee Arthroplasty <i>K Kawahara, T Yoneda, T Yamazaki, K Fuji, N Shimizu, M Yamaki, M Maruta, Y Kamigizaki, T Hatanabe, T Shigeyoshi, H Yoshikawa, K Sugamoto</i> A Multi-center Study of In Vivo Kinematics of a Rotating Platform Posterior Stabilizing TKA Designed to Reduce Coxa-Saltus <i>RD Lewis, JKP Medendorp, JF Donald, RD Komisek, MR Andriac, M.R. Malinz</i> Correlation of 3D In Vivo Patellofemoral Kinematics with Sound Data for TKA and Non-Implanted Knees <i>F Lecco, S Zingale, JH Argenson, MR Malinz, RD Komisek</i>	

Session 11-E: 10:15-10:55 AM	Moderators:	Session 11-F: 10:15-10:55 AM	Moderators:
<b>Revision THA</b>	<b>Daniel Berry</b> <b>Ramon Gustillo</b>	<b>Spine Mechanics</b>	<b>Jeffrey Taylor</b> <b>Mohamed Mairouf</b>
A-691 7:00-7:06 AM A-711 7:06-7:12 AM A-702 7:12-7:18 AM A-947 7:18-7:24 AM A-1086 7:24-7:30 AM A-767 7:30-7:36 AM A-639 7:36-7:42 AM 7:42-7:55 AM	Special Features of Surgical Revision of Ceramic-on-Ceramic Bearings: A Case Study <i>L Sader, J Dammers, R Nair, D Hammond</i> Revision Arthroplasties of Sixty Nine Cases at Philippine Orthopedic Institute (1984-2007) <i>RT Cading, RB Castillo, LJC Leangso</i> Treatment of Large Prolapsed Defects in Revision Total Hip Arthroplasty: A Cup in Cup Construct <i>TJ Blumenthal, HJ Banger</i> Acetabular Revision Using Acetabular Roof Reinforcement Ring <i>YJ Cho, KJ Kim, YS Chun, KH Rhyu, JH Song, MC Yoo</i> Revision Total Joint Arthroplasty in the Otago Region <i>BN Stubbeg, JD Zanatta</i> Pre-Clinical Results of Porous Titanium Particles in Cemented Impaction Grafting Hip Revision Arthroplasty <i>LH Haddad, R Aguirre, BH Schreurs, N Verdonschot, P Buma</i> Use of Wagner Self-Locking Slem with Allgraft for Reconstruction of Femoral Bone Defect During Revision Surgery <i>K Uchiyama, N Takahira, S Takasaki, K Fukushima, T Yamamoto, K Urahe, M Itoami</i>	Normal, Fused and Degenerative Conditions of the Lumbar Spine: A Comparison Study of the 3D In Vivo Mechanics <i>CB Carr, RD Komisek, JS Cheng, MR Malinz, JYW Mitchell</i> Preclinical Evaluation of a Pylorocanal Cervical Total Disc Replacement <i>SD Cook, SJ Salheld, LP Paton</i> Variability and Reproducibility of Range of Motion for Tri-Lobe vs Ball & Trough Cervical Total Disc Designs <i>BK Nguyen, JH Taylor, AS Despres, K Yamamoto</i> Therapeutic Mechanism and Practice in the Treatment of Scoliosis in Growing Children <i>Q Ye, et al.</i> The Effect of Conditionally Surface Demineralized Bone on Spinal Intervertebral Fusion <i>Al Lee, KS Lee, HJ Kim, JS Oh, JH Park, SC Nam, JB Shim, JH Jung</i>	

Session 11-G: 10:15-10:55 AM	Moderators:	Session 11-H: 10:15-10:55 AM	Moderators:
<b>Revision THA</b>	<b>Daniel Berry</b> <b>Ramon Gustillo</b>	<b>Spine Mechanics</b>	<b>Jeffrey Taylor</b> <b>Mohamed Mairouf</b>
A-691 7:00-7:06 AM A-711 7:06-7:12 AM A-702 7:12-7:18 AM A-947 7:18-7:24 AM A-1086 7:24-7:30 AM A-767 7:30-7:36 AM A-639 7:36-7:42 AM 7:42-7:55 AM	Special Features of Surgical Revision of Ceramic-on-Ceramic Bearings: A Case Study <i>L Sader, J Dammers, R Nair, D Hammond</i> Revision Arthroplasties of Sixty Nine Cases at Philippine Orthopedic Institute (1984-2007) <i>RT Cading, RB Castillo, LJC Leangso</i> Treatment of Large Prolapsed Defects in Revision Total Hip Arthroplasty: A Cup in Cup Construct <i>TJ Blumenthal, HJ Banger</i> Acetabular Revision Using Acetabular Roof Reinforcement Ring <i>YJ Cho, KJ Kim, YS Chun, KH Rhyu, JH Song, MC Yoo</i> Revision Total Joint Arthroplasty in the Otago Region <i>BN Stubbeg, JD Zanatta</i> Pre-Clinical Results of Porous Titanium Particles in Cemented Impaction Grafting Hip Revision Arthroplasty <i>LH Haddad, R Aguirre, BH Schreurs, N Verdonschot, P Buma</i> Use of Wagner Self-Locking Slem with Allgraft for Reconstruction of Femoral Bone Defect During Revision Surgery <i>K Uchiyama, N Takahira, S Takasaki, K Fukushima, T Yamamoto, K Urahe, M Itoami</i>	Normal, Fused and Degenerative Conditions of the Lumbar Spine: A Comparison Study of the 3D In Vivo Mechanics <i>CB Carr, RD Komisek, JS Cheng, MR Malinz, JYW Mitchell</i> Preclinical Evaluation of a Pylorocanal Cervical Total Disc Replacement <i>SD Cook, SJ Salheld, LP Paton</i> Variability and Reproducibility of Range of Motion for Tri-Lobe vs Ball & Trough Cervical Total Disc Designs <i>BK Nguyen, JH Taylor, AS Despres, K Yamamoto</i> Therapeutic Mechanism and Practice in the Treatment of Scoliosis in Growing Children <i>Q Ye, et al.</i> The Effect of Conditionally Surface Demineralized Bone on Spinal Intervertebral Fusion <i>Al Lee, KS Lee, HJ Kim, JS Oh, JH Park, SC Nam, JB Shim, JH Jung</i>	

## KONA

Session 12-A: 11:00-11:55 AM

### Update on the "Squeaking THA"

A-692 Noise Occurrence after Alumina-on-Alumina Hip Arthroplasty  
*R. Nizard, J. Cognat, D. Hamannick, J. Barouid, L. Sedel*

A-860 Ceramic Hip Squeaking: Vibration Analysis of Retrieved Hips to Identify the Sound Source  
*J.H. Currier, D.W. Lee, G. Cates, B.H. Currier, A.S. Perry, J.P. Collier*

A-1142 In Vivo Determination and Correlation of Kinematics and Sound for Subjects Having Four Different Ceramic-on-Ceramic THA  
*S. Zingales, F. Lesko, R.D. Komistek, J.P. Garino, W.J. Hozack, D.H. Dennis, M.R. Malinz*

A-1193 The Noisy Hip, Only in Ceramic-on-Ceramic Bearings?  
*K. Knaflitz, A. Pokorny, A. Frank*

A-1223 10 Year Follow-Up of Ceramic-on-Ceramic THA: My Experience with Squeaking Hips  
*W. Walker*

### PANEL DISCUSSION

11:34-11:55 AM

Moderators:

**Douglas Dennis**  
**Laurent Sedel**

A-654 Surgical Impact of Using a Gender Specific Total Knee Prosthesis  
*K. Bertram*

A-872 Functional Outcomes from High Flexion CR vs PS Total Knees  
*R. Cates, M.J. Schmitt, R.D. Komistek*

A-953 Case Report - Early Failure after total knee arthroplasty with use of minimally invasive surgery  
*K. Tiel, T. Matsumoto, S. Kubo, K. Suzuki, K. Ichida, N. Shirayama, H. Marutsu, M. Kurosaka, R. Kuruda*

A-550 A Novel Wound Closure Method to Improve OR efficiencies  
*F. Cuelmer*

11:18-11:24 AM

A-1116 THR in Patients with Gonarthrosis Secondary to Femoral or Tibial Mal-Union: A Review of 34 Cases  
*Y. Catoire, F. Khiami, H. Sari, A.J. J. Leuzenne*

A-961 Stress Distribution in the Knee Joint Following a High Tibial Osteotomy  
*R. Moanah, H.J. Hillstrom, A.M. New, C. Imhauser, R. Walker, K. Cheah, E. Blanc, S. Mungeer, C. Dunc, C. Mouton, A. Burton, S. Hrdil, J. Dowell*

A-1004 Effects of Tibial Insert Slope on Polyethylene Wear  
*L.D. Anghad, B. Stulberg, J. Maloney, D. Conall, J. Scuffins, A. Hayes, J. Weisenburger, H. Haider*

11:36-11:42 AM

### PANEL DISCUSSION

11:42-11:55 AM

## QUEENS

Session 12-B: 11:00-11:55 AM

### TKA: Outcomes, Treatments and Methodologies

A-654 Surgical Impact of Using a Gender Specific Total Knee Prosthesis  
*K. Bertram*

A-872 Functional Outcomes from High Flexion CR vs PS Total Knees  
*R. Cates, M.J. Schmitt, R.D. Komistek*

A-953 Case Report - Early Failure after total knee arthroplasty with use of minimally invasive surgery  
*K. Tiel, T. Matsumoto, S. Kubo, K. Suzuki, K. Ichida, N. Shirayama, H. Marutsu, M. Kurosaka, R. Kuruda*

A-550 A Novel Wound Closure Method to Improve OR efficiencies  
*F. Cuelmer*

11:18-11:24 AM

A-1116 THR in Patients with Gonarthrosis Secondary to Femoral or Tibial Mal-Union: A Review of 34 Cases  
*Y. Catoire, F. Khiami, H. Sari, A.J. J. Leuzenne*

A-961 Stress Distribution in the Knee Joint Following a High Tibial Osteotomy  
*R. Moanah, H.J. Hillstrom, A.M. New, C. Imhauser, R. Walker, K. Cheah, E. Blanc, S. Mungeer, C. Dunc, C. Mouton, A. Burton, S. Hrdil, J. Dowell*

A-1004 Effects of Tibial Insert Slope on Polyethylene Wear  
*L.D. Anghad, B. Stulberg, J. Maloney, D. Conall, J. Scuffins, A. Hayes, J. Weisenburger, H. Haider*

11:36-11:42 AM

### PANEL DISCUSSION

11:42-11:55 AM

Moderators:

**Jean Noel Argenson**  
**Jean Louie Briard**

A-745 In Vivo Wear of Highly Cross-Linked Polyethylene Acetabular Cup Against Alumina Ceramic Head by Radiographic and Retrieval Analysis  
*H. Okazaki Jr., S.C. Kim, H. Okazaki, M. Komuro, M. Yamamoto, M. Ueno*

A-1040 Biological and Structural Characteristics of 28mm Diameter ZTA-ZTA Hip Joints Under Standard and Aggressive Wear Conditions Using Proxim Hip Simulator  
*D. Giddings, J.J. Hu, T. Khan, A. Unsworth*

A-880 Effect of Bearing Material and Size on Total Hip Replacements: Comparison of 14 Different Designs Under the Same Testing Conditions  
*H. Haider, J.V. Weisenburger, K.J. Garvin*

11:12-11:18 AM

A-689 The Midterm Result of 2nd Generation Metal-on-Metal THA in Young Patient  
*T.R. Lyon, S.S. Park, K. Thevarajana, Y.T. Cho, H.K. Yung*

11:18-11:24 AM

A-1204 Diamond-on-Diamond Simulator Studies: THR with Distraction and Other Non-Congruent Bearing Conditions  
*J.K. Taylor, R.H. Dixon, D. Hardy, B.K. Nguyen, M.G. Naylor, D.W. Schroeder*

11:24-11:30 AM

A-884 Correlation of Friction Measurements with Wear Characteristics During Multi-Station Hip Simulator 'Wear Tests'  
*J.N. Weisenburger, M.G. Naylor, D.W. Schroeder, B.F. White, A. Unsworth, K.J. Garvin, H. Haider*

11:30-11:36 AM

A-936 Five Year Wear Comparison of Longevity Highly Cross-Linked Polyethylene Socket Against 26 mm and 32 mm Cobalt-Chromium Heads  
*I. Nakahara, N. Nakamura, H. Miki, M. Takao, T. Sakai, T. Nishii, H. Yoshikawa, N. Sugano*

11:36-11:42 AM

A-936 Counteracting Material Reliability Problems in Hip Prostheses by Means of Advanced Methods of Raman Spectroscopy  
*G. Piczatti*

11:48-11:55 AM

### PANEL DISCUSSION

## KINGS

Session 12-C: 11:00-11:55 AM

### THA Wear

A-745 In Vivo Wear of Highly Cross-Linked Polyethylene Acetabular Cup Against Alumina Ceramic Head by Radiographic and Retrieval Analysis  
*H. Okazaki Jr., S.C. Kim, H. Okazaki, M. Komuro, M. Yamamoto, M. Ueno*

A-1040 Biological and Structural Characteristics of 28mm Diameter ZTA-ZTA Hip Joints Under Standard and Aggressive Wear Conditions Using Proxim Hip Simulator  
*D. Giddings, J.J. Hu, T. Khan, A. Unsworth*

A-880 Effect of Bearing Material and Size on Total Hip Replacements: Comparison of 14 Different Designs Under the Same Testing Conditions  
*H. Haider, J.V. Weisenburger, K.J. Garvin*

11:12-11:18 AM

A-689 The Midterm Result of 2nd Generation Metal-on-Metal THA in Young Patient  
*T.R. Lyon, S.S. Park, K. Thevarajana, Y.T. Cho, H.K. Yung*

11:18-11:24 AM

A-1204 Diamond-on-Diamond Simulator Studies: THR with Distraction and Other Non-Congruent Bearing Conditions  
*J.K. Taylor, R.H. Dixon, D. Hardy, B.K. Nguyen, M.G. Naylor, D.W. Schroeder*

11:24-11:30 AM

A-884 Correlation of Friction Measurements with Wear Characteristics During Multi-Station Hip Simulator 'Wear Tests'  
*J.N. Weisenburger, M.G. Naylor, D.W. Schroeder, B.F. White, A. Unsworth, K.J. Garvin, H. Haider*

11:30-11:36 AM

A-936 Five Year Wear Comparison of Longevity Highly Cross-Linked Polyethylene Socket Against 26 mm and 32 mm Cobalt-Chromium Heads  
*I. Nakahara, N. Nakamura, H. Miki, M. Takao, T. Sakai, T. Nishii, H. Yoshikawa, N. Sugano*

11:36-11:42 AM

A-936 Counteracting Material Reliability Problems in Hip Prostheses by Means of Advanced Methods of Raman Spectroscopy  
*G. Piczatti*

11:48-11:55 AM

### PANEL DISCUSSION

12:00-1:00 PM

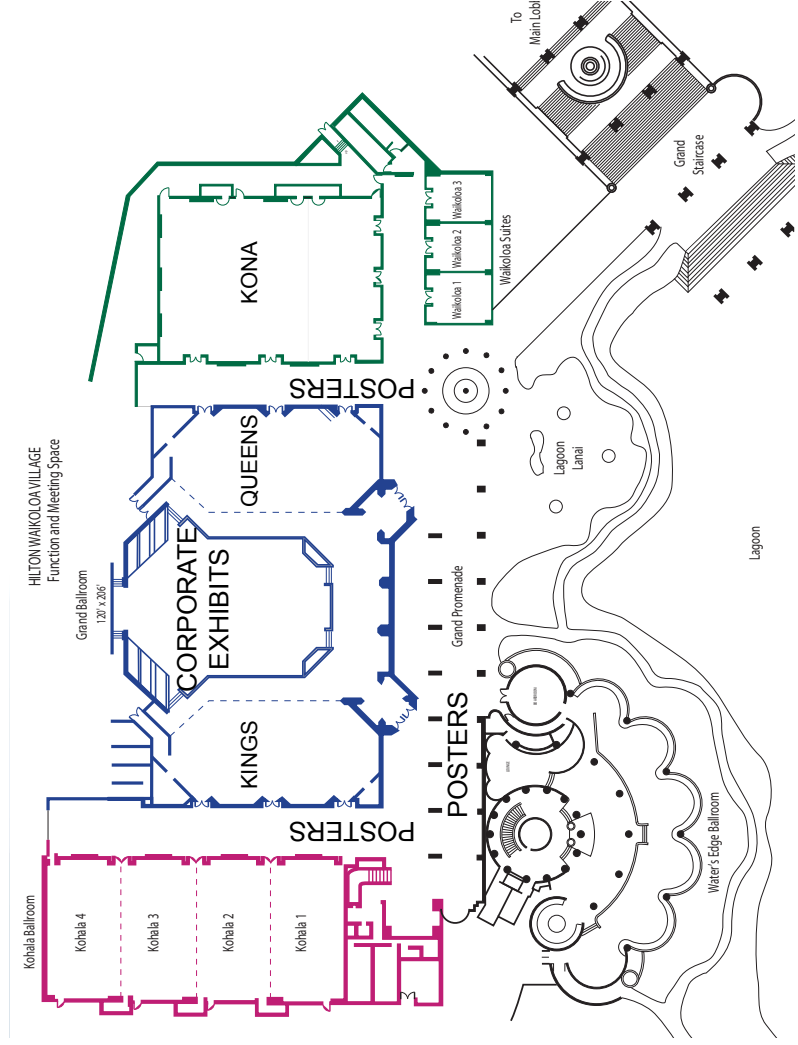
SPONSORED LUNCH - Biomet

12:00-1:00 PM

SPONSORED LUNCH - OtisMed

12:00-1:00 PM

SPONSORED LUNCH - Zimmer



## KONA

Session 13-A: 8:00 - 8:55 AM

Future Technologies in Orthopaedic Industry

Moderators: **Chitranjan Ranawat, Mohamed Mahfouz**

- A-1216 8:00-8:15 AM Healthcare Trends and 21st Century Technologies in the Orthopaedics Industry *Mohamed Mahfouz*
- A-841 8:15-8:21 AM Acoustic Emission Studies of Patients with Prosthetic Hips and Osteoarthritis: A New Diagnostic Technique? *K. Schwarzkopf, F. J. Kummer, W. L. Ruffke*
- A-1122 8:21-8:27 AM Intraoperative Reconstruction of Patient-Specific 3D Knee Model for Total Knee Arthroplasty *R. Tadross and M. R. Mahfouz*
- A-873 8:27-8:33 AM Technology for Comparing Manual Dexterity Between Different Orthopaedic Residents *O. J. Barrera, K. L. Garvin, H. Haider*
- A-841 8:33-8:39 AM Application of Non-Destructive Evaluation Techniques for the Assessment of Bone Cement Microcracking During Fatigue *M. Browne, O. J. Coultrip, C. Hunt, M. Taylor*
- A-766 8:39-8:45 AM What hand the case? *S. Paul, N. Steklov, L. Johnson, D. Lima, C. Cobwell*
- 8:45-8:55 AM PANEL DISCUSSION

Session 14-A: 9:00 - 9:55 AM

Use of Digital Force Technology to Balance Ligaments in TKA

Moderators: **Ray Wasilewski, Peter Walker**

- A-1216 9:00-9:10 AM Balanced Resection vs Measured Resection: The Clinical Importance of Soft-Tissue Balancing During TKA *D. A. Dennis, R. D. Komistek, R. H. Kim, A. Sharma*
- A-903 9:10-9:20 AM Benefits and Limits of an Electronic Soft-Tissue Force Sensing Device in Primary TKA: The European Experience *Leo Beckers*
- A-927 9:20-9:30 AM Taking Flexion Balancing During Total Knee Arthroplasty to the Next Step: How Tight is Just Right? *Russell Nevins*
- A-866 9:30-9:40 AM Confirmation of Soft-Tissue Balance in Primary TKA Following the Use of a Soft-Tissue Force Sensing Device to Develop Balanced Posterior Femoral Resections Relative to the Tibia in Vivo *Steven Kravitz*
- A-663 9:40-9:50 AM Electronic Measurement of Soft Tissue Balancing in TKA *J. F. Ferris and C. Leslie*
- 9:50-9:55 AM PANEL DISCUSSION
- 10:00-10:15 AM BREAK

Session 15-A: 10:15 - 10:55 AM

Robotics in Joint Arthroplasty

Moderators: **Jean Noel Argenson, Gilles Scuderi**

- A-1217 10:15-10:25 AM The Role of Robotics and Smart Tools in Orthopedics *Gilles Scuderi*
- A-1071 10:25-10:31 AM Two Year Outcomes of Robotically Guided UKA *M. Roche, S. Hornvitz, M. J. Condit*
- A-1076 10:31-10:37 AM The Accuracy of a Robot System for Less Invasive Knee Arthroplasty *K. Fujiwara, N. Abe, H. Endo, K. Nishida, S. Mizumi, T. Ozaki, M. Suzuki, T. Saito, N. Sugita, Y. Nakajima, M. Matsushita, T. Inoue, K. Karamoto, Y. Nakashima*
- A-886 10:37-10:43 AM A New Method for Obtaining In Vivo Fluoroscopic Arthroplasty Evaluations with Normal Patient Movement *W. P. Hand, R. D. Komistek, D. Dennis, A. Vee*
- 10:43-10:55 AM PANEL DISCUSSION

Session 16-A: 11:00 - 11:55 AM

What's the Future for Computer Navigation?

Moderators: **David Blaha, Kevin Garvin**

- A-877 11:00-11:10 AM Navigation in TKA: Arguments Against the Use of Navigation *K. L. Garvin, O. J. Barrera, H. Haider*
- A-728 11:10-11:16 AM Intraoperative Registration in Alignment, Resection Height, and Component Sizing When Measured by Computer Navigation vs a Conventional Jig Based Approach *Rick B. Goding*
- A-1067 11:16-11:22 AM Development and Integration of Ultra-Wideband Wireless Technology for Computer Assisted Orthopaedic Surgery *M. R. Mahfouz and M. J. Kain*
- A-1009 11:22-11:28 AM A Safe Pinless Technique to Reconstruct a Neutral Mechanical Axis in Total Knee Arthroplasty *L. Puri, T. C. Meno, D. Hillakis*
- A-564 11:28-11:34 AM Effects of Surgical Position on the Variability of Registration in Image-Free Navigation System for THA *H. Okashi, M. Matsuda, Y. Okamoto, F. Inori, Y. Okajima, H. Tashima, K. Kitano*
- A-876 11:34-11:40 AM Smart-Saw for Navigated Freehand Bone Cutting for TKR: Putting Full Control of the CAOS System in the Hands of the Surgeon *H. Haider, O. J. Barrera, K. L. Garvin*
- 11:40-11:55 AM PANEL DISCUSSION

## QUEENS

Session 13-B: 8:00 - 8:55 AM

Future of Knee Mechanics: Techniques, Modeling and the Patient

Moderators: **Scott Banks, David Blaha**

- A-1195 8:00-8:10 AM Analysis of Normal and Replaced Knee Kinematics in an Isometric Extension Model *J. D. Blaha, D. K. DeBerker, C. L. Barnes, M. R. Overt, P. M. Stamenakis, M. F. Carroll*
- A-1219 8:10-8:16 AM TKA Chirring: Patients and Demographics: Implications for Future Implant Needs *Dan Berry*
- A-591 8:16-8:22 AM Intra-Operative Registration of the Knee Kinematics by a Navigation System *J. Y. Jimmy and F. P. Fribushch*
- A-934 8:22-8:28 AM A Three Dimensional Comparison of the Mechanical Axis of Lower Limb and Loading Direction in Standing Posture *K. Kobayashi, M. Sakamoto, T. Kimura, K. Shin, Y. Tanabe, G. Omeri, Y. Koga*
- A-1149 8:28-8:34 AM A New Technique for Correcting Varus Deformity and Flexion Contracture During Total Knee Arthroplasty: The "Inside-Out" Technique *Y. Shim, J. S. Reinhardt, C. S. Ranawat*
- A-1146 8:34-8:40 AM In Vivo Assessment of 3D Kinematics and Sound of the Knee Joint for Subjects with Varus Articular Cartilage Conditions *S. M. Zingole, F. Lenzo, R. D. Komistek, M. R. Mahfouz, R. C. Wasieleski, J. A. Argenson*
- 8:40-8:55 AM PANEL DISCUSSION

Session 14-B: 9:00 - 9:55 AM

Approaches and Techniques to Predict Future Outcomes

Moderators: **Adolph Lombardi, Phil Noble**

- A-1066 9:00-9:10 AM Does Registry Data Accurately Predict the Future Success of Individual Designs of Joint Prostheses? *P. Noble, A. Brokke, A. Shimmim*
- A-667 9:10-9:16 AM Transposition Osteotomy of the Acetabulum for Advanced Stage Osteoarthritis of the Hips Due to Acetabular Dysplasia *A. Masao, S. Inagishi, Y. Nakashima, T. Yamamoto, T. Mawatari, Y. Nagachi, T. Shuto, Y. Iwamoto*
- A-850 9:16-9:22 AM Which Variables Determine the Outcome of Revision Total Knee Arthroplasty? *J. Victor, F. Hardeman, J. Landers, E. Wirtham*
- A-1141 9:22-9:28 AM Predicting Short-Term Outcome of Primary Total Hip Arthroplasty: A Prospective Multivariate Regression Analysis of 12 Independent Factors *W. Wang, T. Morrison, J. Geller, R. Yoon, W. Macaulay*
- A-826 9:28-9:34 AM Predicting Bone Ingrowth and Tissue Differentiation Around a Long Stemmed Porous Coated Hip Implant Using Fracture Healing Principles *P. K. Puthumangudy and M. Browne*
- A-935 9:34-9:40 AM Clinical Outcomes for Minimum 5 Years after Computer-Assisted Total Knee Arthroplasty *K. Ishida, T. Masumoto, S. Kubo, N. Tamura, A. Kitagawa, M. Kurosaka, R. Kurada*
- 9:40-9:55 AM PANEL DISCUSSION
- 10:00-10:15 AM BREAK

Session 15-B: 10:15 - 10:55 AM

What Does the Future Hold for Shoulder Arthroplasty?

Moderators: **Matthew Hansen, Scott Banks**

- A-784 10:15-10:25 AM Scapulothoracic Rhythm of Reverse Shoulder Arthroplasties During Weighted and Unweighted Shoulder Abduction *D. P. Radtke, H. Cleppe, D. T. Subajati, T. W. Wright, S. J. Banks*
- A-964 10:25-10:31 AM Routine Clinical Outcome Assessment of the Shoulder is Valid Using Inertial Sensor Based Motion Analysis *R. Koerner, J. C. Heyiger, S. Sainjo, B. Grimm*
- A-721 10:31-10:37 AM Inter-Subject Invariant Scapular Axes for Generalised Applications *H. O. Amadi, A. L. Wallace, U. N. Hansen, A. J. Bull*
- A-1162 10:37-10:43 AM The Reverse Shoulder Prosthesis for Glenohumeral Arthritis Associated with Severe Rotator Cuff Deficiency: Clinical and Radiological Results of a New Economic Design *C. F. de Basc, A. Vitello, G. Di Giorgio, F. A. Imperio, A. Carigone*
- 10:43-10:55 AM PANEL DISCUSSION

Session 16-B: 11:00 - 11:55 AM

What's the Future for Ligament Balancing in TKA?

Moderators: **Kim Bertin, Jan Victor**

- A-879 11:00-11:10 AM Lessons Learned from an Intraoperative Compartment Pressure Sensor Used to Assess Ligament Balance During TKA *K. C. Haselmeier, K. C. Sheridan, R. D. Komistek*
- A-805 11:10-11:16 AM Ligament Release During Total Knee Replacement Do Not Increase Postoperative Varus-Valgus Laxity *P. J. C. Hesterbeek, N. J. W. Keijsers, N. Verdonck, A. B. Wymenga*
- A-806 11:16-11:22 AM Soft Tissue Balance in Cruciate-Retaining and Posterior-Stabilized Total Knee Arthroplasty *T. Masamoto, S. Kubo, H. Maruoka, K. Ishida, K. Ito, K. Suzuki, T. Matsushita, M. Kurosaka, R. Kurada*
- A-1186 11:22-11:28 AM Re-thinking Cruciate Retention in Total Knee Arthroplasty: Introduction of a New Technique for Functional Posterior Cruciate Retention in TKA *B. N. Stulberg, D. J. Conall, J. D. Mabry, A. H. Burstein, L. D. Ingham, K. Smith, J. D. Zucalika*
- A-1005 11:28-11:34 AM Impact Factor in Tissue Tension of Extension and Flexion Gap Balance in Computer Assisted Navigation Total Knee Replacement (CAN TRK) *B. Devadasan, W. Luo, C. Ting*
- A-881 11:34-11:40 AM Wireless MEMS Sensors for Ligament Balancing in Total Knee Arthroplasty *E. R. Pritchard and M. R. Mahfouz*
- 11:40-11:55 AM PANEL DISCUSSION

## KINGS

Session 13-C: 8:00 - 8:55 AM

Future of Cartilage Repair Management

Moderators: **Stephen Cook, Bassam Maari**

- A-1163 8:00-8:06 AM Preclinical Evaluation of a Novel Procarton Reconstruction Device For Focal Defects of the Knee *S. D. Cook, S. L. Salski, L. P. Prasad*
- A-1065 8:06-8:12 AM Differentiation of Adult Human Adipose-Derived Stem Cells into Articular Chondrocytes is Achieved by Overexpression of the BMP Receptor 1A *F. Raaij, B. J. Reisterer, D. C. Marden*
- A-564 8:12-8:18 AM Is There an Association Between Articular Cartilage Changes and Type of Meniscal Tear? *C. Dymshil, J. Smit, M. Kalka, C. Perka*
- A-763 8:18-8:24 AM Effect of Magnesium-Fluoride Coating on the Degradation Behavior of Magnesium Based Implants *A. Meyer-Lindenberg, M. Thumann, J. Krause, N. von der Hilt, D. Bornmann, T. Hassel, H. Windhagen*
- A-649 8:24-8:30 AM The In Vivo Effect of Artificial Cartilage Made from a Novel Double-Network Hydrogel on the Microstructure of the Counterforce Normal Cartilage *N. Kikawa, A. Iwatake, H. Fujita, T. Kurokawa, M. Yamamoto, M. Ueno, F. Kanaya, Y. Osada, J. P. Gong, K. Yasuda*
- A-752 8:30-8:36 AM Autologous Chondrocyte Implantation in the Adolescent Knee *M. L. Hansen, W. J. Ciccone II, M. C. Jacofsky, A. Juczycki, A. Boyles, J. C. Oatis*
- A-1169 8:36-8:42 AM Knee Cartilage Modeling and Its Effect on the Accuracy of Surgical Landmarks Identification *E. E. Abdel Fatah and M. R. Mahfouz*
- 8:42-8:55 AM PANEL DISCUSSION

Session 14-C: 9:00 - 9:55 AM

The Future of Alternative Bearings in Orthopaedics

Moderators: **Clifford Colwell, Thomas Blumentfeld**

- A-1159 9:00-9:06 AM Survivorship of Monoblock Cobalt-Chrome Alloy Acetabular Components: Five to Twelve Year Results Study *S. T. Ball, J. B. Huft, G. Hu, M. LeDuff, H. C. Amstutz*
- A-858 9:06-9:12 AM Accelerated Aging of Next Generation Cross-Linked Materials: Stability Concerns? *B. H. Corrier, D. W. Fan, Creers, A. J. Martin, J. C. Hsu, J. H. Corrier, J. P. Collier*
- A-883 9:12-9:18 AM How Durable Are Titanium Nitride Coatings on Total Hip Replacements? *J. N. Weinstein, S. M. Hronowicki, K. J. Garvin, H. Haider*
- A-1135 9:18-9:24 AM The Role of Silver-Coated Tumoral Prosthesis in the Prevention of Fungus Infections: Experimental In Vivo Study *M. J. Rosa, G. Gschweiger, S. Mauro, B. Rossi, N. M. Gangemi, M. Sanginatti, G. Maccrano*
- A-779 9:24-9:30 AM Alumina Ceramic with Highly Crosslinked Polyethylene: Early Clinical Findings *B. E. Bierbaum, D. M. Ward, C. E. Robbins*
- A-1157 9:30-9:36 AM Designing Biocompatibility of Nanostructures for Joint Replacement Implants *P. Numanan, R. Subramani, J. D. Jackson, R. Numanan, J. G. Sharpe, K. L. Garvin, H. Haider*
- A-840 9:36-9:42 AM Mid-Term Clinical Outcomes Following Primary Total Hip Arthroplasty with Oxinium Versus Cobalt-Chrome Femoral Heads: Results of a Prospective Randomized Trial *P. M. Lewis, C. Moore, M. Olsen, E. H. Schmitts, J. P. Waddell*
- 9:42-9:55 AM PANEL DISCUSSION
- 10:00-10:15 AM BREAK

Session 15-C: 10:15 - 10:55 AM

Future Hip Technologies, Materials and Techniques

Moderators: **William Capello, Ian Clarke**

- A-938 10:15-10:21 AM New Bearing Technology for Hip Resurfacing *A. Moroni, G. Micera, R. Chini, M. Haque, S. Giannini*
- A-750 10:21-10:27 AM What is an Acceptable Level of Metal Ions After Metal-on-Metal Hip Resurfacing *K. L. De Smet, P. Campbell, M. Tan, Orson, K. Backers, J. S. Gill*
- A-734 10:27-10:37 AM In-Vivo Like Testing of Ceramic Ball Heads *T. Pandorf and R. Preuss*
- A-1138 10:37-10:43 AM Taper Locking Strength by Foam Metal Component *M. G. Dong, M. Thakore, M. Negler, T. Merritt, S. Kreuzer, L. Puri, W. Hauck*
- A-1056 10:43-10:49 AM Functional outcome of hip resurfacing vs. total hip arthroplasty *P. Noble, L. Oswald, A. Brokke, K. Mathis, R. Nalley, A. Staminin, R. Barreack, G. Stock*
- 10:49-10:55 AM PANEL DISCUSSION

Session 16-C: 11:00 - 11:55 AM

Future of Imaging and Computational Techniques in Orthopaedics

Moderators: **Stephen Murphy, Joseph Moskal**

- A-905 11:00-11:06 AM Evaluation of Intraoperative Pelvic Position During Hip Arthroplasty Using Computed Tomography/Radiography Matching *J. C. Chou, K. Eckman, B. Aranzam*
- A-1161 11:06-11:12 AM Development of a Theoretical Knee Simulator Using a Forward Solution Modeling Technique *J. K. P. Mueller, R. D. Komistek, A. Sharma*
- A-791 11:12-11:18 AM The Rationale and Validation of an Automated Web-Based Electronic Data Capture Radiographic Measurement Tool *S. D. Stulberg, M. Taffe, D. C. Hillakis*
- A-697 11:18-11:24 AM Use of Computer-Based Templates in Preclipping Impingement of Tibial Stem Augments in Knee Arthroplasties After Opening Wedge Osteotomy *W. Wang, T. S. Ong, J. H. Hu*
- A-1090 11:24-11:30 AM Visualization of the Pelvic Vascular Structures Through the Pelvis Using 3D-CT Angiography *Y. Kawasaki, H. Egawa, N. Yasui*
- A-908 11:30-11:36 AM Measurement of the Canal Flare Index Using 3-D Models and the Effect of the Rotational Femur Position *K. Tanaka, H. Iguchi, N. Yamada, N. Yamamoto, S. Hasegawa, S. Marutani, M. Kobayashi, Y. Nagawa, M. Nasaki, T. Osuka*
- A-729 11:36-11:42 AM Use of Slide Presentation Software as a Tool to Measure Hip Arthroplasty Wear *W. Y. Shou, N. K. Jajodia, H. H. Yun*
- 11:42-11:55 AM PANEL DISCUSSION

## KONA

Session 17-A: 1:00 - 1:55 PM

### Knee Mechanics: Can Today's Learned Concepts Benefit Future Outcomes?

Moderators:  
**Robert Booth**  
**Raymond Kim**

Evaluation of TKA Performed with and without Computer Navigation: A Bilateral TKA Study

*D. Dennis, D. Johnson, K. Kiefer, R. Kim*

Total Knee Arthroplasty in Skeletal Dysplasia

*J. Zelle, M. De, H. Maloff, X. Teronocher*

Relationship between the Kinematic Flexion Axis of the Knee and Commonly Used Anatomic Axes

*D. Bhatta, D. DeBorja, C. Barnes, R. Ober, S. Nambhu, P. Seminski, M. Carroll*

Keys to OR Efficiencies

*B. Booth*

Biomechanical Analysis of Posterior Cruciate Ligament Retaining High-Flexion Total Knee Arthroplasty

*J. Zelle, M. De, H. Maloff, X. Teronocher*

Do Resting Periods Influence Polyethylene Wear in Knee Simulator Studies?

*J. Kreuzer, E. Jakobowitz, K. Hoffmann, C. Hasel, R. Sonntag, F. Lutz*

The Effect of Ligament Balancing on External Rotation of the Femoral Component and Assessing the Accuracy of Balancing the Flexion and Extension Gaps in Total Knee Arthroplasty

*G. Koenigsmann*

PANEL DISCUSSION

1:42-1:55 PM

Session 18-A: 2:00 - 2:55 PM

### Understanding Today's Alternative Bearings for Tomorrow's Success

Moderators:  
**Laurent Sedel**  
**Clifford Colwell**

Bionic Design on Joint Prostheses of Low Friction and Low Wear with Hydrogel/Artificial Cartilage

*T. Murakami, K. Nakashima, Y. Sawae, N. Sakai, S. Yamazaki*

Strategy for Femoral Lift-Up in THA through Direct Anterior Approach - Cadaver Study and Clinical Experiences

*M. Matsuda, H. Ohashi, Y. Okamoto, Y. Okajima, T. Kato, H. Tashima, K. Kitano*

PolyWym Formal as Artificial Cartilage for Joint Replacement

*Y. Nakashima, T. Takashima, H. Higuchi, E. Kampanya, Y. Iwamoto, M. Tonge, T. Umeno, K. Shimoto*

Long-Term Hydrophilic Properties of Engineered Zirconia Surfaces for Orthopaedic Implants

*R. Jacobberger, P. Numanav, K. Gervin, H. Walder*

Metal Ions in Conjunction with Patient Activity: Hip Resurfacing Patients at Various Stages of Follow Up

*J. Daniels, A. Kamali, H. Zinec, D. McMillan*

Tribological and Material Analyses of Retrieved Alumina and Zirconia Ceramic Ball Heads Correlated with Polyethylene Wear after Total Hip Replacement

*J-H Kim, J-S Kim*

The Porous Titanium Monobloc Acetabulum - Results to 10 years

*A. Unger, R. Lewis*

PANEL DISCUSSION

2:36-2:42 PM

2:42-2:55 PM

3:00 PM

## QUEENS

Session 17-B: 1:00 - 1:55 PM

### Exciting Minimally Invasive Technologies and Techniques for the Future

Moderators:  
**David Stulberg**  
**Fred Cushman**

Intraoperative Embolic Events During Total Knee Arthroplasty with use of Pulsatile Saline versus Carbon Dioxide Lavage

*R. Zaccaro, R. Schroeder, D. McBratney, M. Behrman, V. Sarrin, T. Monk*

Mini Subvastus Approach for TKA: Is it Safe in Obesity?

*N. Shah, N. Groppe*

The Effect of Single Use Instrumentation on Operating Room Efficiency for Total Knee Arthroplasty: A Multicenter Study

*L. Puri*

Effect of Surgical Approach on Gait Following Total Knee Arthroplasty

*D. Jacobsky, J. McCamley, M. Bhowmik-Stoker, M. Jacobsky, M. Strader*

Minimally-Invasive Management of Knee Osteoarthritis using Compartmental Arthroplasty Combination and Association with Osteotomy

*J. Arbanian, S. Parravic, J.-N. Argenson*

Radiographic Assessment of the Short Hip Stem using a Novel Scoring System

*V. Tyagi, K. Oh*

Minimally Invasive ACL Substituting Knee Replacement in Younger Patients

*B. Waldman*

PANEL DISCUSSION

1:42-1:55 PM

Session 18-B: 2:00 - 2:55 PM

### TKA: Not Just Bone Cuts

Moderators:  
**Kevin Garvin**  
**Chitranjan Ranawat**

How to Obtain Tissue Balancing in TKA

*S. Takai*

Soft Tissue Tension Technique to Self Assessment of Femoral Rotation in Total Knee Arthroplasty: Early Experiences with FBI (Flexion Balancing Instruments)

*B. Fialamon, M. Meloni*

Musculoskeletal Modeling Using an Explicit Finite Element Framework

*C. Clarys, S. Pua, P. Rullkoetter*

Relationship Between Intercondylar Ostrophytes and Cruciate Ligaments in Osteoarthritic Knees

*N. Shimazaki, N. Nakachi, H. Mitsuyama, Y. Konaga, N. Yoshino, T. Matsushita, S. Takai*

A Generalized Cross-Shear Wear Model for Use in Joint Replacement Design

*A. Parvella, J. Armstrong, V. Patel, P. Lee, P. Rullkoetter*

Learning Curve in Minimally Invasive Total Knee Arthroplasty as Measured by Post-Operative Complication Rate

*G. Jones, J. Hollingdale*

PANEL DISCUSSION

2:40-2:55 PM

3:00 PM

## KINGS

Session 17-C: 1:00 - 1:55 PM

### Innovative Future Technologies

Moderators:  
**John Currier**  
**Suichi Matsuda**

The Use of Hip Motion Simulations to Create New Hip Navigation Systems

*R. Thornberry*

A Simple, Laser-Guided System for Prescribing Acetabular Cup Inclination Angle in Total Hip Arthroplasty

*W. McCann, J. Pater, K. Liddle, J. Curry, M. Marmor, J. Buckley*

Wireless Signal Propagation in the Operating Room and Its Implications on Surgical Navigation, Digital Communication, and Smart Surgical Tools

*M. Kuhn, M. Malhotra*

Glove, Gown and Drape Effects on Intraoperative Bacterial Contamination

*W. Hand, J. Cooper, D. Lippert, R. Kahlawi, R. Slawetz*

Patient-Specific 3-D Bone Model Reconstruction for X-Ray Fluoroscopy

*T. Takahashi, M. Hatakeyama*

Accuracy of Cup Center Position in Image-Free Navigation System for Developmental Dysplasia of Hip

*F. Inori, H. Ohashi, M. Matsuda, Y. Okamoto, Y. Okajima, H. Tashima, K. Kitano*

Lateral Epicondylar Osteotomy using Computer Navigation in Total Knee Arthroplasty for Rigid Valgus Deformities

*A. Mullaigh, G. Slarty*

PANEL DISCUSSION

1:42-1:55 PM

Session 18-C: 2:00 - 2:55 AM

### Future Technologies: Can They be of Benefit?

Moderators:  
**Jean Louis Briard**  
**Paul Rullkoetter**

Motion Tracking Using Miniature Wireless MEMS Inertial Motion Sensing Unit

*G. To, M. Malhotra*

Real Time Monitoring of Progressive Damage During Loading of a Simplified Total Hip Stem Construct Using Embedded Acoustic Emission Sensors

*M. Navroghadato, M. Taylor, A. Taylor, M. Browne*

Wireless Ground Reaction Forces and Locations Across the Foot Using In-Shoe MEMS Pressure Sensors

*E. Pritchard, M. Malhotra*

Safety Cleaning Method of Osteosynthesis Plate and Screw for Possibility Reuse in Developing Country

*R. Magersari, C. Hilmy, H. van der Mei, H. Busscher, J. van Horn*

A Dual Mobility Ceramic-on-Ceramic Joint in THA: A New Solution to Reduce the Risk of Dislocation or Subluxation

*B. Mason, J. Lazarus, J. Fisher, L. Leming*

Does a Dysplastic Hip Replacement Require a Stem with Reducer? (Cora Velga) Medial Curve When a Physiological Proximal Load Transfer is Expected?

*H. Iguchi, N. Watanabe, S. Murakami, S. Hasegawa, K. Tawada, M. Yoshida, M. Kobayashi, Y. Nagaya, H. Goto, M. Nozaki, T. Ohsuka, Y. Yoshida, Y. Shibata, Y. Taneda, T. Hirade, J. Pietro, P. Walker*

PANEL DISCUSSION

2:34-2:40 PM

2:40-2:55 PM

3:00 PM

ALPHABETICAL BY LAST NAME

Poster	Presenting Author	Title	Poster	Presenting Author	Title
142	Nobuhito Abe	Three-Dimensional Finite Element Model Analysis for Placement of Tibial Component in Unicompartmental Knee Arthroplasty	189	Tsunehito Ishida	Mid-Term Results and Problems with Metal-On-Metal Total Hip Arthroplasty
233	Jun Aikawa	Radiographic Evaluation of Total Knee Arthroplasty	192	Hiroshi Ito	In Vivo Femoral Head Damage and its Effect on Polyethylene Wear
141	Dr. Mdi. Shari Alam	Evaluation of the Results of Intra Medial Interlocking Nail in the Management of Fracture of Different Long Bones in Difficult	172	David J. Jacobsky	Sit-to-Stand Biomechanics of Patients with Advanced Knee Osteoarthritis
156	Md. Shah Alam	Results of Spinal Decompression & Stabilization with Instrumentation - Personalized Experience	50	Jean-Yves Joray	Intra-Operative Control of the Leg Length Changes During Total Hip Replacement by a Navigation System
181	Yoshiaki Ando	Suitable Evaluation Method for In Vitro Antibacterial Activity of Biomaterials 2nd Report	51	Jean-Yves Joray	A Radiographic and Navigated Study of the Anatomical and Mechanical Femur Axes in the Lateral Plane
194	Noriyuki Arai	Measurements of Version Angle of the Acetabular Component From Radiograph Using the Anterior Pelvic Plane for Reference	152	Ryoyuzo Jimah	The Learning Curve of Robotic-Assisted UKA
218	Koji Asami	Commented Cup Placement with Kerplink Cross Plate is Useful for RA Patients with Prominent Acetabuli	73	Jiayang Jung	Application of Buffered Fixation Method to Dental Implant and Anodizing its Surface for Enhancing Osteointegration
126	Takashi Azuma	Relationship Between the Femoral Morphology and Posterior Condylar Bone Resection with Parallel Cut Technique in the TKA	202	Nobuhiko Kaku	Effect of Coverage and Screws on Acetabular Cup Fixation: An In-Vitro Mechanical Evaluation
42	Dae-Kyung Bae	Computer Assisted Revision Total Knee Arthroplasty	161	Shunsaku Kawano	Mid-Term Results of Alumina Ceramic-On-Ceramic Total Hip Arthroplasty with a Modular Layered Component
105	Dae-Kyung Bae	Long-Term Survivorship Analysis of Implants in Revision Total Knee Arthroplasty	128	Jin Kawayama	A 2D Model: Analysis of a New Type of Knee Prosthesis at High/Deep Flexion: About Size and Alignment of Ball-Socket Design
193	Dae-Kyung Bae	Total Knee Arthroplasty by Intra-Articular Correction Method in Patients with Extra-Articular Deformity of the Femur	24	Constantinos Ketonis	A Rad Model: Allorgraf Bone Impaction in the Presence of Infection
188	Andres Barrera	Introduction of a Navigated Bone Ink-Jet Marker to Improve Surgical Plan Transfer and Cutting Speed	25	Constantinos Ketonis	Mammalian Cells and Host Incorporation Remain Unaffected by Bactericidal Bone Allografts
109	Giuseppe Bernicchi	Flexion and Extension Instability as a Cause of Knee Prosthesis Mobilization	26	Constantinos Ketonis	Comparison of Vancomycin-Tethered Bone Allografts with Current Elution Technologies
71	Manoshi Bhownik-Stoker	Functional Assessment of Stair Negotiation Following a Total and Resurfacing Hip Arthroplasty	143	Sok Chol Kim	Effect of Osteocytic HA on Ra of Mulltitude Type with Extremely Low Ability of Osteoconduction in Cemented Total Joint
15	Karl Billau	The Future of Bio-Ceramics, Chances and Limitations Given by Today's Ceramic Manufacturing Processes	244	Koichi Kishitani	Angiogenic Potential of Femoral Neck Fracture Healing THA
30	Thomas J. Blumentfeld	The "hanging Crank": Initial Description of a Clinical Sign of Increased Flexion Laxity in Total Knee Replacement	226	Azusa Kitagawa	High-Resolution Imaging Total Knee Arthroplasty: In Vivo Kinematic Comparison Pre- and Post-Operation, Osteoarthritic and Rheumatoid Knees
4	Arne Borgwardt	Cup Position and Serum Concentrations of Chromium and Cobalt During the First Two Postoperative Years Using Two Different Resurfacing Hip	205	Kenji Kitamura	Changes of Bone Mineral Density After Cementless Total Hip Arthroplasty with Different Types of Proximal Femoral Canal
5	Arne Borgwardt	Changes in Bone Mineral Density During the First Two Postoperative Years Using Two Different Resurfacing Hip Arthroplasties	231	Daniel Klusess	An Explicit Finite-Element-Analysis of Principal Stresses in Ceramic and Cobalt-Chromium Femoral Components During Impaction of Total Knee Endoprostheses
106	Violante Bruno	Clinical Results in Primary Constrained Condilar Knee Arthroplasty	158	Kerl Knahr	Squeaking Ceramic Hips: Founded Hype or Myth?
251	Christopher Carr	In Vivo Determination of Kinematics for Subjects Having a Prestage Single Level Cervical Disc Replacement	237	Takaeru Kobayashi	Muscle Strength for External Rotation After Posterior Capsulotomous Repair in THA
167	Chih-Wai Chang	Early Polyethylene Inset Failure of a New Mobile-Bearing Knee Prosthesis: A Case Report	74	J. Philippe Kreutzer	Experimental Investigation of Corrosion Effects and Metal Ion Release of Modular Neck Total Hip Arthroplasty
221	WeiJia Chen	Shape of Joint Gap Was Different Between 90° and 120° During Total Knee Arthroplasty	77	J. Philippe Kreutzer	How do Design- and Manufacturing-Related Parameters Influencing the Wear Behaviour of Metal-On-Metal Hip Joint
249	Wen-Chuan Chen	Dynamic Assessment of Artificial Disc Positioning Effect on Sagittal Motion Pattern - a Biomechanical Study	91	Serhan Kreuzer	Direct Anterior Approach for Hip Resurfacing is a Safe Procedure: Early Clinical Results
250	Wen-Chuan Chen	Treatment of Lumbar Compression Fracture Using Transpedicle Body Augmentation - Biomechanical Study with Finite Element Method	235	Lih-Kun-Jih	The Influence of Post-Cam Design Variables on Knee Kinematics in Posterior-Stabilized Knee Arthroplasty
147	Angelo Chessa	Endoprosthetic Implants with Anatomic Cementless Stems of Medial Femoral Neck Fractures of the Elderly	190	Daisaburo Kurosaka	The Accuracy of MRI-Based Patient-Specific Jigs in Total Knee Arthroplasty
257	Yoon-Je Cho	Total Hip Arthroplasty for Late Sequelae of Infectious Arthritis of the Hip	76	Yu-Shu Lai	A Cementless, Proximal Fixed Anatomic Femoral Stem Induces High Micromotion in Patients with Non-Trauma Avascular Necrosis of the Femoral Head
115	Julien Chouteau	Sagittal Laxity After Mobile-Bearing Posterior Cruciate Ligament-Retaining Total Knee Arthroplasty	252	Joaquin Lara	Squeaking and Fracture in Ceramic-Ceramic Total Hip Arthroplasty
132	Marzio Cimmino	Cementless Knee Replacement Techniques	40	Peter Lewis	Total Hip Arthroplasty Following Failure of Core Decompression and Tantalum Rod Insertion for Femoral Head Avascular Necrosis
113	Clifford W. Cowell Jr	The Importance of Body Impingement in Resurfacing Knee Flexion After Total Knee Arthroplasty	75	Peter Lewis	Total Hip Replacement Surgery Utilizing the Echelon Primary Femoral Stem
151	Corradini	Surface Friction Coefficient Operatively with a Subcutaneous Antibiotic Agent of Bone To Treat Periprosthetic Femoral Fractures in Osteoporotic Patients	85	Peter M. Lewis	Component Alignment and the Risk of Femoral Neck Fracture with the Birmingham Mid-Head Resection
23	David J. Covall	A Randomized, Prospective Study Comparing the Efficacy of IPC Technologies and the Extended Use of Pharmaceutical Agents Versus ASA in Prevention of VTES After Total Joint Arthroplasty	90	Peter M. Lewis	Femoral Neck Notching with the Birmingham Mid-Head Resection
14	Cuccinello	Testing the Risk of Femur Fracture During Placement of Radial Stepped and Porous Coated Stems	216	Kuo-Hung Li	Osteoarthritis Patients Proximal Tibia Morphologic Analysis for Total Knee Tibial Component Design
64	John Currier	Revision Options in Hip Resurfacing	89	Seung-Jae Lim	Impingement Following Contemporary Metal-On-Metal Hip Resurfacing Arthroplasty
78	Keon De Smet	Results of High Flexion Total Knee Arthroplasty	234	Yu-Liang Liu	The Effects of Single-Axis and Multi-Axes Designs of U2 Total Knee System on 3-D Knee Kinematics
114	Douglas A. Dennis	Accuracy of Intra-Articular Anesthetic and Steroid Hip Injection in Differentiating Pain Source in Patients with Atypical Hip and Lower Extremity Pain	137	Chena-Chan Lo	Biomechanical Differences Between Colex-F(Tm) and Traditional Pedicle Screw Fixation on Fusion Surgery -- A Finite Element Study
101	Ajit Deshmukh	Management of Periprosthetic Femoral Fractures Using a Tapered Modular Fluted Prosthesis with Distal Fixation	171	Haoguo Lo	Spontaneous Bilateral Femoral Neck Fracture in a Patient with Multiple Myeloma: A 6-Month Follow-Up with Bilateral Cemented Total Hip Arthroplasty
150	Ajit Deshmukh	Core Decompression with Reverse Bone Graft Technique and Hydroxyapatite Granules in Avascular Necrosis of the Femoral Head	242	Adolph V. Lombardi, Jr.	Metals Hypersensitivity Testing in Total Hip Arthroplasty Patients
56	A.S. Dickinson	Performance of the Resurfaced Hip: The Influence of Prosthesis Stem Design on Remodelling and Fracture of the Femoral Neck	13	Adolph V. Lombardi, Jr.	Metals-On-Metal Bearings in Total Hip Arthroplasty: Minimum 2-Year Follow-Up
195	Hiroshi Egawa	Short-Term Results of the Uncemented Proximally HA-Coated Stem (Compillar Grit Blast HA Stem)	27	Adolph V. Lombardi, Jr.	Is Bilateral Simultaneous Partial Knee Arthroplasty Safe?
39	Chi Ho Joon Fan	Reconstruction of Patella Tendon for Extensor Mechanism Failure After Total Knee Arthroplasty: Surgical Technique	28	Adolph V. Lombardi, Jr.	Prevalence of Obstructive Sleep Apnea and Management in Patient Undergoing Total Joint Arthroplasty
65	Andreas Fritsch	Analysis of Osteoblastic Cell Adhesion Strength on Different Orthopedic Implant Surfaces	45	Adolph V. Lombardi, Jr.	Accuracy of Patient-Specific Guides Versus Standard Technique in Total Knee Arthroplasty
160	Kiyozaki Fukui	Planet Transformation and Surface Roughness of Retrieved New Generation Tria-Stabilized Zirconia Femoral Heads After Total Hip	116	Adolph V. Lombardi, Jr.	Do Broader Femoral Size Options More Accurately Accommodate Variations in Direct Lateral Approach?
122	Michihiko Fukunaga	The New Type of Knee Prosthesis Which Can Make Deep Flexion with a Ball-Dish Bearing	133	Adolph V. Lombardi, Jr.	Standard-Length Versus Shortened Tapered Stems Inserted via a Less-Invasive Direct Lateral Approach
169	Kenji Fukunaga	Multi-Detector Row CT Analysis After THA Revealed Low Risk of DVT and PE with Accelerated Rehabilitation and Usage of Venous Foot Pump	135	Adolph V. Lombardi, Jr.	Partial Knee Arthroplasty is Truly Less Invasive and Associated with Minimal Perioperative Morbidity
240	Atsushi Funayama	New Acetabular Reming Guide in Total Hip Arthroplasty	149	Adolph V. Lombardi, Jr.	Intraoperative Femur Fracture is Associated with Stem and Instrument Design in Primary Total Hip Arthroplasty
29	Pei Fu-Xing	The Clinical and Radiological Analysis After Removal of Solidly Fixed Femoral Implants by Extended Trochanteric Osteotomy During Hip Revision	121	William J. Long	Short Term Results of Highly-Crosslinked Polyethylene in Cemented Posterior Stabilised Total Knee Arthroplasty
55	Pei Fu-Xing	Cementless Total Hip Arthroplasty in Chinese Patients with Osteonecrosis of the Femoral Head	87	William Macaulay	Meta-On-Metal Hip Resurfacing Compares Favorably to Total Hip Arthroplasty in the US: Prospective Outcomes at 2 Years
68	Pei Fu-Xing	Total Hip Replacement with a Cementless Acetabular Component and a Cemented Femoral Component in the Treatment of Chinese Patients with Femoral Head Necrosis	17	Rahayyan Magetseri	The Influence of Protein Concentration on Lubricant Toward the Wear and Tear of Ultra High Molecular Weight Polyethylene (UHMWPE) on 316L Stainless Steel with Implants Nitrogen Ion
72	Pei Fu-Xing	Revisions for Pelve Osteolysis with Well-Fixed Cementless Acetabular Component Retention	118	Masashi Manabe	Reasons of Kinematics Knee Prosthesis After TKA About Active Flexion-Extension
110	Ryuzhi Goto	Biomechanical Analysis of the Tibial Inset of the Knee Prosthesis for High-Deep Flexion	244	Masaki Maruoka	Measurement of the Disposition of Medial Gluteal Muscle From Iliac Crest
220	Diana Glasziou	Kinematic Differences Between Common Bearing Surfaces in Total Hip Arthroplasty	96	Bassem Ramzi	In-Vivo Precision of Computed Tomography Topographic Mapping of Subchondral Density (CT-TOMASD) in the Proximal Tibia
130	Said Gonnas	Paradoxical Anterior Sliding in Total Knee Arthroplasty: The Illness and the Cure	229	Shusaku Matsuda	Total Knee Arthroplasty for Post-Traumatic Knee Arthritis
139	Koji Goto	Radiographic Evaluation of Cemented Total Hip Arthroplasty with a Structural Autograft Fixed with HA-PLLA Composite Screws: Long-Term Results of 6 Cases	207	Akinobu Matsushita	Adjusting the Combined Anterior-Tension To Maximize Range of Motion in Total Hip Arthroplasty: Acetabular Side or Femoral Side, Which Adjustment is More Effective?
182	Tomohiro Goto	Treatment of Failed Bipolar Arthroplasty for Recurrent Dislocation of Total Hip Replacement	54	Maria Chiara Maloni	Role of the Animalized Model in the Arthroplasty Surgery
59	James B. Grimes	Triglycopy-Matched Total Hip Arthroplasty Femoral Component: Strain Distribution and Seven Year Clinical Results	238	Gonya Mitani	Clinical Results of MIS TKA Using a New Device "A Patella Trap Retractor"
21	Ramon B. Gustilo	Knee Revision Surgery at Philippine Orthopedic Institute : Analysis of Forty (40) Cases (1987-2007)	79	Joseph Mitchell	Comparison of Volumetric and Surface Statistical Analyses of the Lumbar Vertebrae
100	Takahito Hanouchi	In Vivo Three Dimensional Analysis of Uncovered Area of Cup in THA	239	Shigen Mitsuhashi	THA Without Femoral Shoreing Osteotomy for Crowe S Group IV Dislocated Hip
224	Katsutoshi Hara	Morphologic Evaluation of Distal Femur with Reference to Medial and Lateral Epicondylar Prominences - Using CT Based Three-Dimensional Analysis	57	Hironasa Mitsui	Short Term Radiographic Findings After Uncemented Hip Replacements Using a Lateral Flare Stem in Japanese Patients
123	Mitsuki Hasegawa	Phycoelastic Stems: Analysis of the Tibial Inset of the Knee Prosthesis for High-Deep Flexion	18	Khalidul Faizi Mohammad	Scar Reassignment Osteotomy for Osteoarthritis of the First Metatarsophalangeal Joint
217	Shinichi Hasegawa	How Does the Lateral Flare Work?-Comparing Condylar Stem Ratio Mapping on Stem Surface With/Without Lateral Flare	173	C.W. Moon	Total Knee Arthroplasty for Peritarsal Fractures of the Distal Femur in Osteoarthritis
183	MIKI Hayashi	Soft Tissue Injection of Bupivacaine and Epinephrine Has a Beneficial Effect After Total Knee Arthroplasty	81	Takano Moroni	Femoral Head Lengthening Combined with Resurfacing in Patients with Severe Congenital Dysplasia of the Hip
215	Maasahi Hirakawa	Consideration on Rotational Alignment of the Tibial Component in Total Knee Arthroplasty	170	Takkan Morshina	The Change of D-Dimer Value After Total Hip Arthroplasty-Effect of Anti-Coagulation Medicine-
127	Mohammad Abrar Hossain	Kinematic Measurements of Knee Prosthesis at Passive Knee Motions from Fluoroscopy Images	41	Anun Mullaji	Alignment in Revision Total Knee Arthroplasty Using Computer Navigation Designed for Primary Total Knee Arthroplasty
199	D.S. Hwang	The Comparison of Clinical Results of Cementless Bipolar Hemiarthroplasty and Internal Fixation with Compression Hip Screw on Femoral Basiscervical Communited Fracture in Elder Patients	43	Anun Mullaji	Alignment in Arthritic Knees with >=15° Deformity Treated with Computer Navigated Total Knee Arthroplasty
200	D. S. Hwang	Femoral Head-Neck Junctional Spur in Young Adult Hip with Nonspecific Synovitis	44	Anun Mullaji	Effect of Optimised Gap Balancing Using Computer Navigation on Joint Line and Femoral Offset Restoration in Primary Total Knee Arthroplasty
169	Riichiro Ishikawa	Accuracy of a CT Based Hip Navigation System with Fluoroscopic Registration Compared with Landmark Registration	98	S. Mursakami	Evaluation of the Rotational Differences Affecting Radiological Fill of the Hip Stem
162	Shinichi Ikeda	Cruciate Ligament and Chromium in Blood in Patients Managed with Cementless Total Hip Arthroplasty -A Prospective Randomized Clinical Trial	47	Stephen B. Murphy	The Hip Socket: Navigation of Acetabular Component Orientation Using a Mechanical Instrument
67	Yong In	The Effect of Implant Design on Patellar Tracking in Total Knee Arthroplasty: Genes II Versus Vanguard Knee	134	Stephen B. Murphy	Prospective Comparison of Total Hip Arthroplasty Performed Using Conventional and Tissue-Preserving Techniques: A Minimum 2-Year Outcome Study
129	Takeshi Ishida	Chronological Changes in Spinopelvic Alignment After THA	212	Takuya Nakamura	Influence of the Lengths of Stems in Proximal Femur in Cementless Total Hip Arthroplasty

ALPHABETICAL BY LAST NAME

Poster	Presenting Author	Title	Presenting Author	Title
56	Ichiro Nakayama	A Case Report of Prosthetic Implant Associated Osteosarcoma in a Ceramic TKA	Tetsu Shozawa	The Change of the Temperature During the Abnormal Rapid Stiffening of the Bone Cement Using an Infrared Thermometer
201	Chai Ng	Effect of Surface Treatments on Bone In-Growth into Titanium Porous Material Using a Canine THA Model	Tetsu Shozawa	Application Experiments of the Abnormal Rapid Stiffening of the Bone Cement
66	Lucifido Gian Nicola	Prevention of Luxation in THA in Elderly, Neuromuscular Diseases and Alzheimer Syndrome with Cementless Cup with Dual Mobility	Tetsu Shozawa	Reaction Report of the Abnormal Rapid Stiffening of the Bone Cement
99	Yoshio Hashimura	99 Tc-MDP Uptake and Flexibility About Knee Prosthesis After TKA from Fluoroscopic Images	M. Sonohata	Total Hip Arthroplasty for Patients with a Body Mass Index of Over 35 Kg/m <sup>2</sup>
208	Keigo Nishimura	Gait Analysis of the Dogs Which Were Implanted the Artificial Hip Joint	Atsiko Sorayata	The Hip Software: An Accurate Method to Calculate Cup Placement Using Standard Post-Operative CT-scan in THR
61	Philip Noble	The Ligamentum Teres Undergoes Significant Elongation During Normal Hip Motion	Simon D Strachan	Outcome of Ceramic-Ceramic Total Hip Arthroplasty in Patients with Developmental Dysplasia of the Hip
80	Philip Noble	The Effect of Operative Volume on the Outcome of Hip Resurfacing	Robin Strachan	Radiological and Arthroscopic Assessment of Chondral Surfaces in the Degenerative Knee and Implications for Partial Replacement
82	Philip Noble	Factors Affecting the Survival Rate of Hip Resurfacing Arthroplasty: A Computer Simulation of a Joint Registry	Bernard Stulberg	Improving Predictability in Cruciate Retaining Total Knee Arthroplasty
131	Philip Noble	Length of Cortical Contact, Not Alignment, Critically Affects the Stability of Distal Tapered Stems	Bernard Stulberg	Using Surgical Navigation Intraoperatively to Assess Implant Design Goals: A Comparative Study
246	Kashima Nobuhito	Intraoperative Fracture of the Femur Using Pneumatic Rasing Machine in Cementless Total Hip Arthroplasty	Kazutaka Sugimoto	Damage of a Postoperative Total Knee Prosthesis Used for a Super Long Term (25-30years)
179	Takahiro Noguchi	Venous Thromboembolism Prophylaxis for Total Knee Arthroplasty (The Validity of Early Rehabilitation)	Takuroki Sumino	Clinical Outcome of the CCK Total Knee Arthroplasty
211	Koji Noyonori	Position and Canal Fill of Cementless Anatomical Femoral Components by Anterior Mini-One Approach	Megumi Suzuki	Development of New Surface Structure for Artificial Joint
286	Toshihiro Ogino	Study on the Resizing Ability After TKA	Michael Swank	The Relations Between the Grading of Patellar Cartilage Degeneration and Knee Flexion Angle
6	Hiroyuki Onishi	Study on Wear of Highly Cross-Linked Polyethylene Acetabular Cup Against Alumina Ceramic Head by Radiographic and Retrieval Analysis	Shino Takaki	Computer Navigated Birmingham Hip Resurfacing: One Centers Early Results
144	Hironobu Onishi	Twenty-Three Year-Clinical Studies of New Bone Cement with HA (IBBC) on Radiograph and Histology	Yuya Takakubo	Pathophysiology of DVT and PE in TKA
145	Hironobu Onishi	Effect of Osteoconductive HA on Defense Against Radiolucent Line and Osteolysis in Cemented Total Joint Arthroplasty with HA (IBBC) - In Histological Studies-	Mitsuhiko Takeda	Total Knee Arthroplasty with CT Based Navigation System for Rheumatoid Patients
97	Subrata Pal	A Customised Hip Prosthesis Design- Validation Using CT Scan Data in Animal Model	Hiroshi Tamai	Comparison of the Position of the Popliteal Artery Between Posterior Cruciate Ligament Retaining and Sacrificing Prostheses in the Same Patients
34	Seonghun Park	Kinematic Variability of the Neck and Upper Extremities During Walking in Healthy Young Adults	Yasuhiko Tanaka	Patella Fracture After Total Knee Arthroplasty with Cementless Inset Patella Implant: 2 Cases Reports
84	Youn-Soo Park	Total Resurfacing Arthroplasty for Avascular Necrosis of the Hip	Aree Tinavalee	A Case of Ring THA to Which Revision Surgery was Conducted After 38 Years
124	Jungjoo Park	Nonlinear Kinematic Characteristics of the Lower Extremities During Treadmill Walking for Young Adults	Hiroyuki Taniuchi	Comparing Results of Minimally Invasive Total Knee Arthroplasty Performed with and without Computer-Assisted Navigation
24	Shigehiko Park	Significance of the Gender-Knee in Indian Patients	Hiroyuki Taniuchi	Effect of Spinal Torsion Measurement on the Results of Total Hip Arthroplasty
63	Seokhan Park	Analysis of the Hip at Time of Total Hip Arthroplasty: A Tridimensional Study of 469 Patients	Hiroyuki Taniuchi	Intercardiac Soft Tissue Tension Measurement of Total Hip Arthroplasty
110	Parvate	Does Participation in Not-Recommended Sports Impact Total Knee Arthroplasty Durability?	Jeffery K. Taylor	Kinematic Response of a Tri-Lobe Articulating Cervical Disc Replacement Relative To AP Placement
175	Jeremy Pearl	Orthopaedic Wear Debris Particles are Recognised in Part by Toll-Like Receptors	Sait Thiengwittayaporn	A Comparison of Blood Loss After Minimally Invasive Surgery Total Knee Arthroplasty Between Procedures Performed with and without Electronic Computer Navigation
70	Tong Peiljan	Experimental Study of Repairing Vessels with You Gui Yin in Combination with MSCs Arterial Perfusion for Avascular Necrosis of the Femoral Head	Mitsugu Todo	Effect of Pelvis on the Mechanical Interaction Between Femur and Femoral Stem
117	Jennifer Peter	A Simple Intraoperative Knee Goniometer for Use in Total Knee Arthroplasty	Mitsugu Todo	Comparison of Posterior Stabilized and Cruciate Retaining Type Knee Prostheses Under Flexional Motion
120	David Plenkowski	Multifall Carbon Nanotubes Alter the Flow of Heat in Bone Cement	Pei Jian Tong	Research the Value of a Drainage in the Total Knee Arthroplasty
195	Wu Po-ling	Blood Loss After Minimally Invasive Total Knee Arthroplasty: Effects of Image-Less Navigation	Pei Jian Tong	The Causes and Preventive Measures of Operative Complications
82	Ashok Rajagopal	Early Results of the Gender-Knee in Indian Patients	Kawanishi Yoshiyuki	Lateral Plane Cementless Stems for Patients Over 90 Years Old
104	Ashok Rajagopal	Effect of Gender on the Results of Total Hip Arthroplasty	Burhanuddin Yaqoob	Biomechanical Comparison of Cemented Versus Cementless Femoral Stems
163	KH Rhee	Proposed Indications and Their Patterns of Abolishing a Robot-Assisted Arthroplasty	Junji Yamamoto	Non-Linear Stiffness Properties in Hip Stems to Encourage Bone Remodelling and Reduce the Chance of Fracture
83	O. Ricci	Versatility of the Revision Prosthesis (LIMA/LTO) Device in the Total Hip Replacement Surgery	Qian Qian Wang	Bearing Conformity in Knee Joint Replacements: Curved Versus Flat Tibias
60	Michelo Attilio Rosa	Elliptical System in Emiarthroplasty of the Hip: Personal Experience at a Follow-Up of Four Years	Hiroki Watanabe	Femoral Anterior Tangent Line of Osteoarthritic Knee for Determining the Rotational Alignment of the Femoral Component in Total Knee Arthroplasty
154	R. Russo	Total Shoulder Arthroplasty with SMR Reverse Prosthesis	Joel Weisenburger	Could the Metallic Head as Well as the UHMWPE Bearing Liner Wear in Total Hip Replacements?
155	R. Russo	Bony Necktie: a Biologic Solution To Restore Tuberosity Position in Reverse Shoulder Trauma Prostheses	Plus Wong	Sensitivity of Knee Kinematics to Quadriceps Load in Extension
203	Tetsuya Sakamoto	Central Migration of the Femoral Head After Hip Hemiarthroplasty	Jun Jie Wu	The Effect of Third Body Alumina Particles on the Wear and Surface Topography of 38mm Ceramic-On-As Cast CoCrMo Total Hip Replacements
53	Sunryoung Showprut	Does Cultural Demand Affect the Range of Motion of Total Knee Arthroplasty with Mobile-Bearing Prosthesis?	Jun Jie Wu	Biological and Structural Characterizations of 38mm ZTA Ceramic Versus As-Cast CoCrMo Hip Bearings
184	Shinji Sugi	Effect of Therapeutic Radiation on the Mechanical Properties of a Polymer Carriage Cable	Kohji Yabuno	Effect of Implant Type on Periosteal Bone Remodelling After Cementless Hip Arthroplasty Using the Robodoc System
194	Shinji Sugi	Effect of Therapeutic Radiation on the Mechanical Properties of a Polymer Carriage Cable	Kohji Yabuno	Effect of Implant Type on Periosteal Bone Remodelling After Cementless Hip Arthroplasty Using the Robodoc System
35	Tomotaro Sato	Sugar Therapy for Infection and Skin Ulcer After TKA	Yoshihiro Yamakita	Incidence of Deep Venous Thrombosis After Pubic Osteotomy
219	Nachiro Sawaguchi	Mobile Bearing Total Knee Arthroplasty Improves Patella Tracking and Patello-Femoral Contact Stress-in Vivo Measurements in the Same Patients	Hajime Yamataka	Total Knee Arthroplasty for Valgus Deformed Knee in Rheumatoid Arthritis
49	Philipp Schmidt	The Applicability of Utilizing an Intra-Operative Navigation System to Help Select Ideal Femoral Component Size in TKA	Chyun-Yu Yang	Early or Late Release of Tourniquet in Primary Total Knee Arthroplasty? Comparison of Perioperative Issues
168	Masayuki Saikuguchi	Clinical Results of Total Elbow Arthroplasty with Fine Total Elbow Joint System	Koichiro Yano	Efficacy of Total Knee Arthroplasty on Disease Activity of Rheumatoid Arthritis: Results of 3-Year Followup
222	J. H. Seo	Effects of Adding a Flexion Axis on Load-Sharing Characteristics and Contact Area for the Femoral Component Design of the Total Knee Replacement System: A Finite Element Analysis	Y. Yonekura	Antibacterial Activity of Heated and Hydrated Dolomite Powder
46	Ritesh P Shah	Accurate Intra-Operative Assessment of Knee Deformity is a Useful Predictor of Post-Operative Outcome	Taek Rim Yoon	THA with Subtrochanteric Osteotomy and Conical Stem in High Dislocated Hips due to the Sequela of a Septic Hip in Childhood -
40	Rajesh A Sharma	Ligament Advancement Reconstruction in TKA: A Study of the Effect of Ligament Tension on the Kinematics of the Knee	Taek Rim Yoon	Acetabular Revision Using Acetabular Roof Reinforcement Ring with a Hook: Minimum 10-Years Follow-Up Result
171	Yoshitaka Shimada	Effect of the Position of the Femoral Head on the Kinematics of the Knee	Hiroyuki Yoshida	Effect of the Position of the Femoral Head on the Kinematics of the Knee
178	Takumi Shimazaki	In Vivo Ability of Novel Thermal Sprayed Antibacterial Coating To Steric Methylcellulose-Resistant Staphylococcus Aureus	Eiji Yoshimizu	Early Evaluation of the Onoplos-Cementation After Unicondylar or Bicondylar Knee Arthroplasty by MRI
69	Hiroki Shimozaki	Proximal 3-Dimensional Tapered Cementless Stem in Hemiarthroplasty of the Hip Joint	Paavi Zigo	A Minimum Five Years of Follow-Up Results in Single-Radius, High-Flex Posterior Stabilized TKA
206	Kai Shiramizu	Effect of Highly Cross-Linked Polyethylene Thickness on its Wear Measurement in Total Hip Arthroplasty A Multi Centre Trial		TKR-is the Navigation System Necessary?
22	W.Y.Shon	The Fate of Pelvic Osteolysis After Total Hip Arthroplasty		

# ISTA 22nd Annual Congress: Program Summary

Registration is open from 2:30 - 7:00 pm on Wednesday, 6:00 am - 4:00 pm Thursday, 6:00 am - 2:00 pm Friday, and 6:00 am to 3 pm Saturday.  
The speaker ready room is available whenever registration is open.

		Kona Ballroom	Queen's ballroom	King's Ballroom
<b>WED</b>	7:00 PM	<i>Presidential Reception</i>		
<b>THURSDAY</b>	7:05 AM	Opening Session 0-A: A Tribute to Three Pioneers in Arthroplasty		
	8:00 AM	Session 1-A: Orthopedic Imaging	Session 1-B: THA: Clinical Results	Session 1-C: Total Shoulder Arthroplasty
	9:00 AM	Session 2-A: Update on Ceramics in Total Joint Arthroplasty	Session 2-B: TKA: Patellar Issues	Session 2-C: Total Knee Arthroplasty: Potpourri
	10:00 AM	<b>BREAK</b>		
	10:15 AM	Session 3-A: Knee Kinetics & Kinematics	Session 3-B: THA: Component Orientation and Surgical Accuracy	Session 3-C: Fixation: Theory and Practice
	11:00 AM	Session 4-A: Hip Mechanics Analyses	Session 4-B: Effects of Wear Debris	Session 4-C: Short Stems in THA
	12:00 PM	<b>Sponsored Lunch 1 - Synvasive</b>	<b>Sponsored Lunch 2 - Ceramtec</b>	<b>Sponsored Lunch 3 - DePuy</b>
	1:00 PM	Session 5-A: TKA: Experience and Design Factors	Session 5-B: Risk Factors in Arthroplasty	Session 5-C: The Diseased Joint: Non Arthroplasty Options
	2:00 PM	Session 6-A: Hip Resurfacing: Influencing factors, Outcomes and Concerns	Session 6-B: Knee Mechanics	Session 6-C: Fracture Management
	3:00 PM	Session 7-A: Total Hip Arthroplasty	Session 7-B: Preoperative Evaluation and Clinical Results of TKA	Session 7-C: Minimally Invasive THA
4:00 PM	<b>Poster Session</b>			
5:00 PM				
<b>FRIDAY</b>	7:00 AM	Session 8-A: UKA: Clinical Results and Techniques	Session 8-B: Managing Deformities	Session 8-C: Revision THA
	8:00 AM	Session 9-A: Mechanics and Mechanisms of the Knee	Session 9-B: Should I use Navigation?	Session 9-C: Complication Management
	9:00 AM	Session 10-A: Update on Alternative Bearings in THA	Session 10-B: Factors Affecting Total Hip Arthroplasty	Session 10-C: In Vivo Kinematics
	10:00 AM	<b>BREAK</b>		
	10:15 AM	Session 11-A: Implant Alignment	Session 11-B: Ethnic and Gender Issues in Arthroplasty	Session 11-C: Spine Mechanics
	11:00 AM	Session 12-A: Update on the "Squeaking THA"	Session 12-B: TKA: Outcomes, Treatments and Methodologies	Session 12-C: THA Wear
	12:00 PM	<b>Sponsored Lunch 1 - Biomet</b>	<b>Sponsored Lunch 2 - Zimmer</b>	<b>Sponsored Lunch 3 - Otismed</b>
6:30 PM	<i>Gala Dinner</i>			
<b>SATURDAY</b>	7:00 AM	<b>OPEN SESSION: CEO Roundtable Discussion</b>		
	8:00 AM	Session 13-A: Future Technologies in Orthopaedic Industry	Session 13-B: Future of Knee Mechanics: Techniques, Modeling and the Patient	Session 13-C: Future of Cartilage Repair Management
	9:00 AM	Session 14-A: Use of Digital Force Technology to Balance Ligaments in TKA	Session 14-B: Approaches and Techniques to Predict Future Outcomes	Session 14-C: The future of alternative bearings in orthopaedics
	10:00 AM	<b>BREAK</b>		
	10:15 AM	Session 15-A: Robotics In Joint Arthroplasty	Session 15-B: What does the future hold for Shoulder Arthroplasty?	Session 15-C: Future hip technologies, materials and techniques
	11:00 AM	Session 16-A: What's the Future for Computer Navigation?	Session 16-B: What's the future for ligament balancing in TKA?	Session 16-C: Future of Imaging and computational techniques in Orthopaedics
	1:00 PM	<i>Award Session (lunch provided)</i>		
	1:00 PM	Session 17-A: Knee Mechanics: Can Today's Learned Concepts Benefit Future Outcomes?	Session 17-B: Exciting Minimally Invasive Technologies and Techniques for the Future	Session 17-C: Innovative Future Technologies
	2:00 PM	Session 18-A: Understanding Today's Alternative Bearings For Tomorrow's Success	Session 18-B: TKA: Not Just Bone Cuts	Session 18-C: Future Technologies: Can they be of Benefit?
<b>CONGRESS ADJOURNED</b>				