

# EORS 2006 BOLOGNA

EUROPEAN ORTHOPAEDIC  
RESEARCH SOCIETY   
16th ANNUAL MEETING

7-9 JUNE 2006

ISTITUTI ORTOPEDICI RIZZOLI

# ***ENDORSED BY:***



ITALIAN  
ORTHOPAEDIC  
RESEARCH  
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Ms. Grazia Gliozzi  
Ms. Ariane Magrou  
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## CONGRESS VENUES

The meeting will be held at the Istituti Ortopedici Rizzoli in Bologna, Italy from 7 to 9 June 2006. This is located in two buildings on a hill outside the old gates of Bologna. The original institute ("Istituto Rizzoli") is hosted in a preciously decorated building annexed to the orthopaedic hospital. Convention facilities, research laboratories, and outpatient clinic are hosted in a different building ("Centro Congressi") at a short distance from the hospital. A shuttle bus (free-of-charge) connects the two units, but a 10 minute walk with a beautiful view on the hills south of Bologna is a nice alternative in late spring.

The meeting **registration** and a **welcome cocktail** will start in the afternoon of Wednesday, 7 June at the Istituto Rizzoli soon after the closure of the Italian Orthopaedic Research Society (IORS) annual meeting. This will be at the Sala Vasari of the Istituto Rizzoli, via Pupilli 1. You may reach this building by bus (ATC line "30") either from the railway station (Stazione Centrale) or the city centre (piazza Cavour). Tickets may be purchased on board (1€ coins)

If you are interested in the **IORS meeting**, please consult the website at [IORS2006](http://IORS2006). Admission to this meeting is free, and your attendance is greatly welcome. This year we are particularly honoured to host two distinguished guests. Dr. Katsuyuki Kusuzaki, from Tsu City, Japan, will lecture on *Photodynamic Therapy of Musculoskeletal Tumors* at 12:00 am, and Dr. Henry J. Mankin, from Boston, Massachusetts, will lecture on *Fracture Healing and Bone Repair* at 4:30 pm.

The **EORS meeting scientific sessions** will start on June 8 at 8:30 am at the Centro Congressi, via di Barbiano 1/10. This building may be reached by bus (ATC line "Navetta E"), either from the railway station (Stazione Centrale) or the city centre (piazza Cavour). Tickets may be purchased on board (1€ coins)

## REGISTRATION AND INFORMATION DESK

**Wednesday, 7 June.** From 17.30 to 20.00 at the Istituto Rizzoli (via Pupilli 1).

**Thursday, 8 June.** From 8:00 am throughout the meeting, at the Centro Congressi (via di Barbiano 1/10).

**Friday, 9 June.** From 8:00 am throughout the meeting, at the congress centre (via di Barbiano 1/10).

For organizing reasons, **pre-registration deadline is May 15**. After this date, participants will not receive the meeting bag and will not be admitted to the welcome cocktail, coffee-breaks, or luncheons. The same restrictions applies to on-site registering participants.

## WELCOME COCKTAIL

A welcome cocktail will be held for the EORS 2006 participants on Wednesday, June 7 at 19:00 at the Chostro Ottagonale of the Istituto Rizzoli. Entrance will be by ticket only. **Please confirm your participation to the cocktail by May 15.**

## OFFICIAL LANGUAGE

The official language of the European Orthopaedic Research Society is English. No translation services will be available.

## SCIENTIFIC SESSIONS

**Oral sessions.** Only MS PowerPoint presentations will be accepted. Presenter's own PC are not allowed. Presenters are invited to provide their presentation in a digital format (either a CD-ROM or an external memory device) to the Meeting Secretariat well in advance to their scheduled session. The time allocated for each oral presentation is 8 minutes plus 2 minutes for discussion.

**Poster sessions.** These will be held every day in the halls next to the meeting rooms. Please note that the maximum size of the poster should be 150 (height) x 90 (width).

## CONFERENCE DINNER

The conference dinner will be held at the Palazzo del Podestà, a 13<sup>th</sup> century building located in Piazza Maggiore, in the heart of Bologna, just in front of the church of San Petronio. Entrance will be by ticket only. **Please confirm your participation to the dinner by May 15.**

## AWARDS

The six best abstracts will be invited to submit a complete manuscript to compete for the Mario Boni Award with a prize of € 3000. The five best abstracts on imaging technology in biological, technical and medical research within the musculo-skeletal system compete for the Göran Selvik Award with a prize of € 1000. In addition, three poster awards (each € 250) will be given to the best posters in the fields of biomechanics, clinical research, and biology, respectively.

## EORS GENERAL ASSEMBLY

The EORS Assembly will be held on Thursday 8 June at 12:45 in the Aula Magna of the Centro Congressi.

## SPECIAL SESSION ON THE FUTURE OF EORS

The President of EORS will outline the future of the Society in this special session that will be held on Friday 9 June at 14:00 in the Aula Magna of the Centro Congressi.

## INSURANCE

The Congress organisers cannot accept liability for personal injuries sustained, or for loss of, or damage to, property belongings of congress participants, either during or as a result of the Congress. Please check the validity of your own insurance.

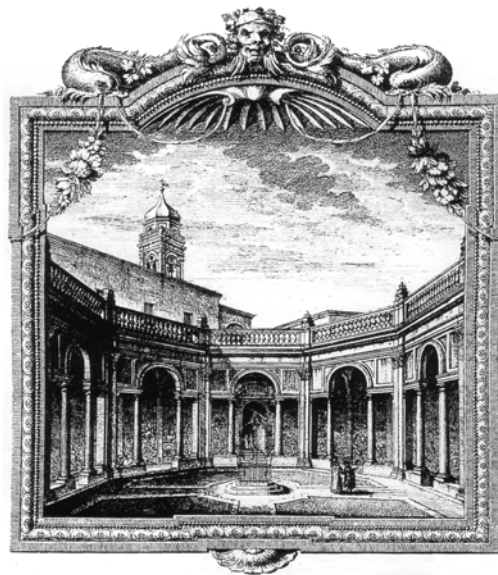
**Wednesday, 7 June 2006**

10.00	<b>SALA DEL VASARI</b> <b>IORS MEETING – Session 1</b>
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12.00	<b>SALA DEL VASARI</b> <b>“Photodynamic Therapy of Musculoskeletal Tumors”</b> Speaker: K. Kusuzaki
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14.00	<b>SALA DEL VASARI</b> <b>IORS MEETING – Session 2</b>
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16.30	<b>SALA DEL VASARI</b> <b>“Fracture Healing and Bone Substitutes”</b> Speaker: Henry J. Mankin
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18.30	<b>CHIOSTRO OTTAGONALE</b> <b>EORS OPENING</b>
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8.30	<p><b>AULA MAGNA</b></p> <p><b>Workshop: “Aseptic Loosening of Prostheses”</b></p> <p>Chairman: E. Gómez-Barrena</p> <p>Speakers: N.A. Athanasou, A. Trampuz</p>
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	<p><b>AULA MAGNA</b></p> <p><b>Session 1 - Tissue Engineering 1</b></p> <p>Chairmen: S. Giannini, W. Richter</p>	<p><b>ANFITEATRO</b></p> <p><b>Session 2 - Biomechanics 1</b></p> <p>Chairmen: A. Leardini, N. Verdonschot</p>
09.30	O1. PLA SCAFFOLDS OBTAINED BY SUPERCRITICAL FLUID FOAMING FOR BONE TISSUE ENGINEERING ( <u>Pioletti DP</u> , Montjovent MO, Mathieu L, Schmoekel H, Mark S, Bourban PE, Zambelli PY, Månson JAE, Applegate LL)	O8. COMBINING SUBJECT-SPECIFIC AND COLLECTION DATA TO CREATE PREDICTIVE MODELS TO BE USED IN THE CLINICAL PRACTICE ( <u>Viceconti M</u> , Montanari L, Taddei F, Martelli S, Manfrini M, Toni A)
09.40	O2. 3D-BIOACTIVE SCAFFOLDS FOR BONE REGENERATION ( <u>Verné E</u> , Vitale-Brovarone C, Robiglio L, Appendino P, Bassi F, Mozzati M, Muzio G, Martinasso G, Canuto R)	O9. FACTORS AFFECTING THE MAXIMUM FLEXION ANGLE IN TKR ( <u>Walker PS</u> , Yildirim G, Sussman-Fort J, Roth J, White B, Klein KR)
09.50	O3. TISSUE ENGINEERING FOR MENISCUS REGENERATION IN A SHEEP MODEL ( <u>Kon E</u> , Delcogliano M, Filardo G, Chiari-Grisar C, Nehrer S, Ambrosio L, Salter D, Tognana E, Marcacci M)	O10. CAN MUSCULAR STIMULATION INCREASE ARTICULAR STABILITY IN ACL-DEFICIENT KNEES? ( <u>Bonsfills N</u> , Núñez A, Gómez-Barrena E)
10.00	O4. EFFECT OF DYNAMIC CULTURING OF HUMAN MESENCHYMAL STEM CELLS ON 3D POROUS PLGA SCAFFOLDS FOR BONE TISSUE ENGINEERING ( <u>Stiehler M</u> , Baatrup A, Lind M, Kassem M, Bünger CE, Mygind T)	O11. IN VIVO ANALYSIS OF ANTERO-MEDIAL INSTABILITIES OF THE KNEE, THE ROLE OF ACL ( <u>Zaffagnini S</u> , Bignozzi S, Martelli S, Lopomo N, Marcacci M)
10.10	O5. HIGH DOSES OF OP-1 INHIBIT FIBROUS TISSUE ARMORING ( <u>Hannink G</u> , Aspenberg P, Schreurs BW, Buma P)	O12. THE INFLUENCE OF SCOLIOSIS ON THE PLANTAR PRESSURE DISTRIBUTION ( <u>Pavlačková J</u> , Hlaváček P)
10.20	O6. AC-100, A SYNTHETIC FRAGMENT OF MEPE, PROMOTES BONE FORMATION AND MATURATION IN RODENT AND CANINE BONE REGENERATION MODELS ( <u>Rosen DM</u> , Middleton-Hardie CA, Aswani S, Lazarov M)	O13. EXPERIMENTS ON BONE CEMENT POLYMERIZATION: TEMPERATURE AND RESIDUAL STRESSES ( <u>Plamondon D</u> , Madrala A, Nuño N)
10.30	O7. EX VIVO GENE THERAPY APPROACH USING HUMAN LIM MINERALIZATION PROTEIN-3 TO INDUCE SPINE FUSION IN A RODENT MODEL ( <u>Pola E</u> , Logroscino G, Lattanzi W, Logroscino CA)	O14. CHARACTERIZATION OF SHOULDER PATHOLOGY USING 3D KINEMATIC SENSORS ( <u>Jolles BM</u> , Aminian K, Bourgeois A, Coley B, Pichonnaz C, Leyvraz PF, Farron A)

10.45 Coffee-break

	<b>AULA MAGNA</b> <b>Session 3 - Clinical Research 1</b> Chairmen: A. Giunti, H. Kienapfel	<b>ANFITEATRO</b> <b>Session 4 - Biomechanics 2</b> Chairmen: L. Claes, M. Viceconti
11.00	O15. ADAPTIVE BONE REMODELLING OF THE BIRMINGHAM HIP RESURFACING COMPONENT: AN INVESTIGATION ON IMPLANT ORIENTATION INFLUENCE ( <u>Kohan L</u> , Gillies RM, Hogg M, Cordingley R)	O22. THE DEPENDENCE OF ESTIMATED FEMORAL CANCELLOUS BONE PERMEABILITY ON TIME USING HIGH AND LOW VISCOSITY CEMENT: PRELIMINARY RESULTS ( <u>Abdulghani S</u> , Tidehem J, Wang JS, McCarthy I)
11.10	O16. ION RELEASE FROM METAL-ON-METAL HIP RESURFACING IMPLANTS DOES NOT DIFFER FROM STANDARD METAL-ON-METAL TOTAL HIP REPLACEMENT ( <u>Moroni A</u> , Savarino L, Hoang-Kim A, Cadossi M, Greco M, Baldini N, Giannini S)	O23. NUMERICAL SIMULATION OF BONE CEMENT POLYMERIZATION: TEMPERATURE AND RESIDUAL STRESSES ( <u>Pérez MA</u> , Nuño N, Plamondon D, Mađrala A, García-Aznar JM, Doblaré M)
11.20	O17. CORROSION AND CORROSION PRODUCTS OF MODULAR-BODY TITANIUM ALLOY FEMORAL STEMS IN CEMENTLESS HIP REPLACEMENT ( <u>Urban RM</u> , Gilbert JL, Jacobs JJ)	O24. THE USE OF LOW AND HIGH VISCOSITY CEMENT IN HIP RESURFACING ARTHROPLASTY: AN IN VITRO STUDY (Howald R, Kesteris U, Wittwer M, Zhang K, Yakimicki D, Klabunde R, <u>Krevolin J</u> )
11.30	O18. LONG-TERM FIXATION AND POTENTIAL FAILURE MECHANISMS IN CEMENTLESS ACETABULAR COMPONENTS RETRIEVED POSTMORTEM ( <u>Urban RM</u> , Hall DJ, Jacobs JJ, Pourzal R, Wimmer MA, Sumner DR, Galante JO)	O25. BIOTRIBOLOGICAL EVALUATION OF AN ARTIFICIAL DISC ARTHROPLASTY DEVICE. INFLUENCE OF LOADING AND KINEMATIC PATTERNS DURING IN VITRO WEAR SIMULATION ( <u>Grupp TM</u> , Yue YY, Garcia R, Schwiesau J, Fritz B, Blömer W)
11.40	O19. HETEROTOPIC OSSIFICATION FALSELY ELEVATES PERIPROSTHETIC BMD ( <u>Downing M</u> , Knox D, Ashcroft GP)	O26. INDIRECT DETERMINATION OF TRABECULAR BONE. EFFECTIVE TISSUE PROPERTIES USING MICRO-FINITE ELEMENT SIMULATIONS ( <u>Verhulp E</u> , van Rietbergen B, Müller R, Huiskes R)
11.50	O20. ADAPTIVE BONE REMODELING OF AN ACETABULAR CUP: A CLINICAL COMPARISON ( <u>Gillies RM</u> , Hogg M, Cordingley R, Kohan L)	O27. VISCOUS AND 'PSEUDO-VISCOUS' EFFECTS OF ELEVATED WATER CONTENT ON LIGAMENT MECHANICS ( <u>Zec ML</u> , Thistlethwaite PA, Frank CB)
12.00	O21. EARLY DIAGNOSIS OF CERAMIC LINER FRACTURE: GUIDELINES BASED ON A 12-YEAR CLINICAL EXPERIENCE WITH 3710 MODERN CERAMIC PROSTHESES ( <u>Traina F</u> , Stea S, Visentin M, Sudanese A, Giardina F, De Clerico M, Bordini B, Tassinari E, Polmonari M, Cervini A, Di Motta D, Toni A)	O28. INFLUENCE OF FREEZING AND THAWING ON THE BIOMECHANICAL AND STRUCTURAL PROPERTIES OF THE HUMAN POSTERIOR TIBIAL TENDON ( <u>Buda R</u> , Di Caprio F, De Pasquale V, Bassi A, Fornasari PM, Giannini S)
12.15	<b>AULA MAGNA</b> <b>Keynote lecture: "Polymorphisms of Genes Associated to Osteoporosis in Caucasian and African Postmenopausal Women"</b> Speaker: S. Musumeci	



12.45	<b>EORS General Assembly</b>
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### 13.15 Lunch and Poster Session

	<b>AULA MAGNA</b> <b>Session 5 - Tumors</b> Chairmen: N.A. Athanasou, N. Baldini	<b>ANFITEATRO</b> <b>Session 6 - Biomaterials</b> Chairmen: G. Ciapetti, G. Richards
14.15	O29. CELLULAR AND HUMORAL MECHANISMS OF OSTEOCLAST FORMATION AND RESORPTION IN MELANOMA METASTASIS ( <u>Athanasou NA</u> , Lau YS, Sabokbar A, Cerundolo V)	O36. COMBINED GENTAMICIN-HYDROXYAPATITE COATING FOR CEMENTLESS JOINT PROSTHESES SHOWS SIGNIFICANT REDUCTION OF INFECTION RATES AND GOOD BIOCOMPATIBILITY IN A RABBIT MODEL ( <u>Alt V</u> , Bitschnau A, Sewing A, Meissner SA, Wenisch S, Domann E, Schnetzler R)
14.25	O30. CT-GUIDED PERCUTANEOUS BIOPSY OF MUSCULOSKELETAL LESIONS ( <u>Rimondi E</u> , Rossi G, Alberghini M, Bianchi G, Fabbri N, Mercuri M)	O37. BACTERIAL ADHESION ON SURGICAL MATERIALS: EFFECT OF A NEW SURFACE COATING ON ADHERENCE OF <i>S. AUREUS</i> ( <u>Kinnari TJ</u> , Esteban J, Zamora N, Lappalainen R, Konttinen Y, Gómez-Barrena E)
14.35	O31. NEUROBLASTOMA CELLS SUPPRESS OSTEOBLAST DIFFERENTIATION BY SECRETING WNT INHIBITORS ( <u>Amato I</u> , Pagani S, Devescovi V, Carella M, Savino MG, Baldini N, Granchi D)	O38. ANATOMICAL COMPARISON OF PORCINE AND HUMAN THORACOLUMBAR VERTEBRAE ( <u>Dath R</u> , Porter KM, Miles AW)
14.45	O32. SSX: A NEW MOLECULAR TARGET REGULATING CELL MOTILITY OF BONE AND SOFT-TISSUE TUMOURS ( <u>Itoh K</u> , Naka N, Yoshioka K)	O39. ADHESIVE FORCES SIGNIFICANTLY AFFECT NANOINDENTATION OF SOFT POLYMERIC MATERIALS ( <u>Gupta S</u> , Carrillo F, Li C, Pruitt LA, Puttlitz C)
14.55	O33. MECHANISMS UNDERLYING THE ANTICANCER EFFECTS OF ZOLEDRONIC ACID AGAINST HUMAN OSTEOSARCOMA CELLS ( <u>Kubista B</u> , Trieb K, Sevelde F, Arrich F, Toma C, Elbling L, Sutterlüty H, Scotlandi K, Kotz R, Micksche M, Berger W)	O40. INCREASING THE CRYSTALLINITY OF CROSSLINKED UHMWPE ( <u>Bistolfi A</u> , Turell ME, Thornhill TS, Bellare A)
15.05	O34. PHOTODYNAMIC DETECTION OF MOUSE OSTEOSARCOMA IN THE SOFT TISSUES UTILIZING FLUOROVISUALIZATION EFFECT OF ACRIDINE ORANGE ( <u>Satonaka H</u> , Kusuzaki K, Matsubara T, Shintani K, Wakabayashi T, Matsumine A, Uchida A)	O41. OXIDATION IN IRRADIATED UHMWPE WITHOUT ANNEALING ( <u>Bellare A</u> , D'Angelo F, Ferretti A, Thornhill TS)
15.15	O35. MUTATIONAL ANALYSIS OF EXT1 AND EXT2 GENES AND CORRELATION WITH CLINICAL EXPRESSION OF DISEASE IN PATIENTS WITH HEREDITARY MULTIPLE EXOSTOSES (Pedrini V, Maini V, Capponcelli S, Mordenti M, Parra A, Picci P, <u>Sangiorgi L</u> )	O42. MATRIX METALLOPROTEINASE-9 IN A SMALL ANIMAL MODEL OF WEAR DEBRIS-INDUCED OSTEOLYSIS ( <u>Ibrahim T</u> , Ong SM, Taylor GJS)

**15.30-15.45 Coffee-break**

	<b>AULA MAGNA</b> <b>Session 7 - Biomechanics 3</b> Chairmen: F. Gottsauner-Wolf, U.E. Pazzaglia	<b>ANFITEATRO</b> <b>Session 8 – Clinical Research 2</b> Chairmen: M. Marcacci, A. Trampuz
15.45	O43. IS HIGHFLEX TKA EFFECTIVE AT HIGHER FLEXION ANGLES AND DOES IT MAINTAIN THE GOOD MECHANICAL PERFORMANCE OF STANDARD TKA AT NORMAL FLEXION ANGLES? ( <u>Barink M</u> , De Waal Malefijt M, Van Kampen A, Verdonschot N)	O50. ABSENCE OF LYMPHATICS AT THE BONE-IMPLANT INTERFACE: IMPLICATIONS FOR PERIPROSTHETIC OSTEOLYSIS ( <u>Athanasou NA</u> , Edwards J, Schulze E, Sabokbar A, Gordon-Andrews H, Jackson D)
15.55	O44. <i>IN VITRO</i> PATELLAR TRACKING DURING NAVIGATED TOTAL KNEE REPLACEMENT ( <u>Belvedere C</u> , Leardini A, Ensini A, Moctezuma de la Barrera JL, Catani F, Giannini S)	O51. SHORT-TERM RESULTS OF A NEW DESIGN OF TOTAL ANKLE REPLACEMENT ( <u>Giannini S</u> , Leardini A, Romagnoli M, Sarti D, Catani F)
16.05	O45. FUNCTIONAL EVALUATION OF THE PFC AND CKS KNEE SYSTEM ( <u>Boonstra M</u> , Eenhuizen C, Schimmel J, De Waal Malefijt M, Verdonschot N)	O52. ALUMINA, ZIRCONIA, AND COMPOSITE CERAMICS IN JOINT PROSTHESES ( <u>Macchi E</u> )
16.15	O46. THE INFLUENCE OF CROSS SHEAR ON THE WEAR OF TKE UNDER VARIOUS KINEMATIC CONDITIONS ( <u>Knight LA</u> , McEwen HMJ, Jeffers J, Fisher J, Rullkoetter P, Taylor M)	O53. AN <i>IN VITRO</i> AND <i>IN VIVO</i> EXPERIMENTAL ANALYSIS ON THE ADHESION AND SPREADING OF CELL CULTURES ONTO “TREVIRA” TUBE IN PROSTHETIC RECONSTRUCTION AFTER WIDE RESECTION FOR MALIGNANT BONE TUMOURS ( <u>Rosa MA</u> , Maccauro G, Sgambato A, Caminiti R, Alesci M)
16.25	O47. PRIMARY FIXATION IN A REVISION TOTAL KNEE ARTHROPLASTY MAY NOT IMPLY LONG TERM FIXATION: THE EFFECT OF STEM LENGTH ( <u>Schmidt J</u> , Henderson A, Ploeg H, Deluzio K, Dunbar M)	O54. RECONSTRUCTION OF MASSIVE ROTATOR CUFF LESIONS WITH A SYNTHETIC INTERPOSITION GRAFT ( <u>Audenaert E</u> , Van Nuffel J, Verhelst M, Verdonk R)
16.35	O48. A NEW TECHNIQUE TO MAKE 2D WEAR MEASUREMENTS INSENSITIVE TO RADIOGRAPHIC DIFFERENCES OF CEMENTED TOTAL HIP PROSTHESES. FROM DEVELOPMENT TO VALIDATION ( <u>The B</u> , Flivik G, Diercks RL, Verdonschot N)	O55. ANALYSIS OF KEY PARAMETERS IN <i>IN SITU</i> CONTOURING SURGERY USING A VALIDATED FINITE ELEMENT MODEL ( <u>Lafon-Jalby Y</u> , Steib JP, Lavaste F, Skalli W)
16.45	O49. IMAGE-BASED RSA: A NEW METHOD FOR RSA WITHOUT BONE MARKERS ( <u>de Bruin PW</u> , Kaptein BL, Stoel BC, Reiber JHC, Rozing PM, Valstar ER)	O56. EFFECT OF INTRA-ARTICULAR STEROIDS ON DEEP INFECTIONS FOLLOWING TOTAL KNEE ARTHROPLASTY ( <u>Joshy S</u> , Thomas B, Gogi N, Singh BK)

Friday, 9 June 2006

08.30	<p><b>AULA MAGNA</b></p> <p><b>Workshop: “Biomimetic Strategies for Bone Tissue Regeneration”</b></p> <p>Chairman: N. Rushton</p> <p>Speakers: A.Tampieri; J.A. Jansen; R.G. Richards</p>
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	<p><b>AULA MAGNA</b></p> <p><b>Session 9 - Pathophysiology</b></p> <p>Chairmen: N.M. Maraldi, T.A. Mitsiadis</p>	<p><b>ANFITEATRO</b></p> <p><b>Session 10 - Biomechanics 4</b></p> <p>Chairmen: J.A. Jansen, A. Toni</p>
09.45	O57. CARTILAGE DERIVED PARACRINE FACTORS INFLUENCE CHONDROGENESIS IN MESENCHYMAL STEM CELLS ( <u>Ahmed N</u> , Dreier R, Grifka J, Grassel S)	O64. 68Ga-DOTA-PEPTIDE TARGETING VAP-1 FOR <i>IN VIVO</i> EVALUATION OF INFLAMMATORY AND INFECTIOUS BONE CONDITIONS ( <u>Lankinen P</u> , Mäkinen TJ, Pöyhönen T, Virsu P, Jalava J, Jalkanen S, Roivainen A, Aro HT)
09.55	O58. EXPERIMENTAL VERTEBRAL GROWTH DISTURBANCES AFTER UNILATERAL MULTISEGMENTARY DAMAGE OF THE EPIPHYSEAL PLATE AND THE NEUROCENTRAL CARTILAGE ( <u>Barrios C</u> , Burgos J, Hevia E, Maruenda JI)	O65. PRELIMINARY WEAR RESULTS OF A NEW DESIGN OF ANKLE PROSTHESIS ( <u>Leardini A</u> , Affatato S, Leardini W, O'Connor JJ, Viceconti M)
10.05	O59. EFFECTS OF EARLY AND LATE ZOLEDRONATE TREATMENT ON BONE MICROSTRUCTURE IN OVARIECTOMIZED RATS ASSESSED BY <i>IN VIVO</i> MICRO-CT ( <u>Brouwers JEM</u> , van Rietbergen B, Huiskes R)	O66. INTER-LABORATORY CONSENSUS ABOUT <i>IN VITRO</i> STABILITY TESTING OF CEMENTED AND CEMENTLESS HIP STEMS ( <u>Cristofolini L</u> , Duda G, Prendergast PJ)
10.15	O60. BIOMECHANICAL AND HISTOLOGICAL CHANGES IN THE PORCINE DISC AFTER TREATMENT WITH HIFU ( <u>Forslund C</u> , Hansson H-A, Ekström L, Holm S)	O67. VIBRATION ANALYSIS ON PARTIALLY CEMENTED CUSTOM HIP STEMS: A PER-OPERATIVE STUDY ( <u>Jaecques SVN</u> , Pastrav LC, Mulier M, Van der Perre G)
10.25	O61. NOVEL NONVIRAL GENE TRANSFER SYSTEMS ALLOW FOR AN EFFICIENT GENE DELIVERY INTO CELLS OF MUSCULOSKELETAL ORIGIN ( <u>Orth P</u> , Kaul G, Kohn D, Cucchiari M, Madry H)	O68. THE EFFECT OF IMPLANT DESIGN AND BONE QUALITY ON MICROMOTION OF UNCEMENTED ACETABULAR CUPS ( <u>Janssen D</u> , Zwartelé RE, Doets HC, Verdonschot N)
10.35	O62. TOWARDS EARLY DETECTION OF OSTEOARTHRITIS: ASSESSING HUMAN ARTICULAR CARTILAGE BY SCANNING FORCE MICROSCOPY ( <u>Raiteri R</u> , Gottardi R, Kilger R, Aeschmann L, Cardinali V, Imer R, König U, Staufer U, Stolz M, Aebi U, Friederich N)	O69. COMPUTATIONAL SIMULATION OF OSSEOINTEGRATION IN TOTAL HIP REPLACEMENTS ( <u>Pérez MA</u> , Moreo P, García-Aznar JM, Doblaré M)
10.45	O63. WHICH CELLS ARE PIVOTAL IN ECTOPIC BONE FORMATION? (Toom A, Suutre S, Arend A, Märtson A)	O70. ON THE BONE VOLUME RESECTED AND FIXATION FOR ACETABULAR COMPONENTS OF HIP RESURFACING ( <u>Winzenrieth R</u> , Plamondon D, Lavigne M, Vendittoli PA, Nuño N)

## 11.00 Coffee-break

	<b>AULA MAGNA</b> <b>Session 11 - Clinical Research 3</b> Chairmen: N. Rushton, D. Dallari	<b>ANFITEATRO</b> <b>Session 12 - Tissue Engineering 2</b> Chairmen: A. Facchini, L. Munuera
11.15	O71. A PROSPECTIVE RANDOMISED TRIAL COMPARING MINIMAL INVASIVE AND STANDARD PARAPATELLAR APPROACHES FOR UNICOMPARTMENTAL KNEE ARTHROPLASTY ( <u>Jackson MP</u> , Cottam HL, Apthorp HD, Butler-Manuel PA)	O78. IDENTIFICATION OF CARTILAGE DEDIFFERENTIATION MARKERS THROUGH GENE EXPRESSION ANALYSIS WITH A 30,000 cDNA ARRAY ( <u>Boeuf S</u> , Steck E, Buneß A, Witte D, Sültmann H, Poustka A, Richter W)
11.25	O72. MEASUREMENT OF SOFT TISSUE BALANCE DURING TOTAL KNEE REPLACEMENT SURGERY: A TEN YEAR RETROSPECTIVE STUDY ( <u>Attfield SF</u> , Wilton TJ, Pinnington LL)	O79. PROTEASE INHIBITOR MEDIATED SUPPRESSION OF LATE STAGE CHONDROGENIC DIFFERENTIATION OF MESENCHYMAL STEM CELLS IN VITRO ( <u>Bertram H</u> , Dreyer R, Wachters J, Boehmer S, Richter W)
11.35	O73. A NAVIGATED DRILL GUIDE USING AN INSTRUMENTED LINKAGE FOR THE PLACEMENT OF CUTTING JIGS DURING TOTAL KNEE ARTHROPLASTY (Balicki MA, Forman RE, <u>Walker PS</u> , Wei CS, White B, Roth J, Klein GR)	O80. INFLUENCE OF GEL-LIKE MATRICES ON CHONDROGENIC DIFFERENTIATION OF MSC AND DIFFERENTIATION STABILITY AFTER ECTOPIC IMPLANTATION ( <u>Dickhut A</u> , Lorenz H, Bischel O, Richter W)
11.45	O74. ADAPTIVE BONE REMODELLING OF ALL POLYETHYLENE UNICOMPARTMENTAL TIBIAL BEARINGS ( <u>Gillies RM</u> , Hogg M, Cordingley R, Kohan L)	O81. A COMPARISON OF THE DIFFERENT GROWTH FACTOR REPERTOIRE AND THE FACTOR REQUIREMENT FOR SUCCESSFUL CHONDROGENESIS OF MSCs FROM BONE MARROW AND ADIPOSE TISSUE (Hennig T, Lorenz H, Götzke K, <u>Richter W</u> )
11.55	O75. DOES LIGAMENT BALANCING TECHNIQUE AFFECT KINEMATICS IN ROTATING PLATFORM KNEE ARTHROPLASTIES? ( <u>Jayasekera N</u> , Kashif F, Schmotzer H, Fennema P, Simms M, Gamada K, Banks S)	O82. COMBINED HUMAN IGF-I AND FGF-2 GENE TRANSFER STIMULATES THE REPAIR OF FOCAL CARTILAGE DEFECTS IN VIVO ( <u>Madry H</u> , Kaul G, Orth P, Zurakowski D, Kohn D, Cucchiari M)
12.05	O76. NAVIGATED METHODOLOGY FOR INTRAOPERATIVE KINEMATIC ASSESSMENT OF THE KNEE STABILITY (Martelli S, Zaffagnini S, Bignozzi S, <u>Lopomo N</u> , Marcacci M)	O83. MOLECULAR AND IMMUNOHISTOLOGICAL CHARACTERIZATION OF HUMAN CARTILAGE TWO YEARS FOLLOWING AUTOLOGOUS CELL TRANSPLANTATION ( <u>Marconi E</u> , Grigolo B, Roseti L, De Franceschi L, Desando G, Manfredini M, Faccini R, Facchini A)
12.15	O77. NONFIXATED-MOBILE MEDIAL COMPARTMENT KNEE HEMIARTHROPLASTY: OUTCOMES WITH AND WITHOUT ARTHROSCOPIC SYNOVIAL ABLATION ( <u>Trotter D</u> , Patari S)	O84. THE DETACHED OSTEOCHONDRAL FRAGMENT AS A SOURCE OF CELLS FOR AUTOLOGOUS CHONDROCYTE IMPLANTATION (ACI) IN THE ANKLE JOINT ( <u>Giannini S</u> , Buda R, Grigolo B, Vannini F, De Franceschi L, Facchini A)

12.30	<p><b>AULA MAGNA</b></p> <p><b>Keynote lecture: “Biomechanics of bone repair and regeneration”</b></p> <p>Speaker: L. Claes</p>
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### 13.00 Lunch and Poster Session

14.00	<p><b>AULA MAGNA</b></p> <p><b>Keynote lecture: “Future of EORS”</b></p> <p>Speaker: EORS President</p>
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	<p><b>AULA MAGNA</b></p> <p><b>Session 13 - Bone Substitutes</b></p> <p>Chairmen: A. Tampieri, D. Donati</p>	<p><b>ANFITEATRO</b></p> <p><b>Session 14 - Biomechanics 5</b></p> <p>Chairmen: L. Cristofolini, M. Taylor</p>
14.30	O85. EFFECTS OF A NEW BFGF/TCP-COMPOSITE ON PERIIMPLANT BONE ( <u>Maus U</u> , Ohnsorge JAK, Andereya S, Siebert CH, Niedhart C)	O92. QUANTIFYING FRACTURE FIXATION USING RADIOSTEREOMETRY ( <u>Downing M</u> , Ashcroft B, Ashcroft GP)
14.40	O86. THE BIOLOGICAL PROPERTIES OF CALCIUM PHOSPHATE BONE SUBSTITUTES ARE INFLUENCED BY THE BIOMATERIAL PORE SIZE ( <u>Klenke FM</u> , Liu Y, Siebenrock KA, Hofstetter W)	O93. RADIOSTEREOMETRIC ANALYSIS (RSA) OF THREE-DIMENSIONAL MICROMOTION IN A FRACTURE MODEL OF THE DISTAL RADIUS ( <u>Madanat R</u> , Moritz N, Mäkinen TJ, Aro HT)
14.50	O87. HEALING OF 1.5 CM ULNA DEFECTS WITH A PORCINE COLLAGEN-DERIVED MATRIX ( <u>Smitham PJ</u> , Michaels D, Leong A, Stephens P, Vizesi F, Bruce W, Hill R, Walsh WR)	O94. FEMORAL FRACTURE LOAD AND FAILURE ENERGY IN TWO LOAD CONFIGURATIONS: AN <i>IN VITRO</i> STUDY (Duchemin L, Skalli W, Topouchian V, Benissa M, <u>Mitton D</u> )
15.00	O88. 52 WEEK RESULTS OF AN IN VIVO EVALUATION OF BONE GRAFT SUBSTITUTE PARTICULATES IN A RABBIT MODEL ( <u>Smitham PJ</u> , Butler A, Vizesi F, Michaels D, Bruce W, Buckland T, Walsh WR)	O95. COMPUTATIONAL SIMULATION OF FRACTURE HEALING UNDER FLEXIBLE AND RIGID FIXATION ( <u>Gómez-Benito MJ</u> , García-Aznar JM, Peris JL, Atienza C, Comín M, Doblaré M)
15.10	O89. INCREASED AMOUNT AND STRENGTH OF RESTORED BONE USING A SLOWER-RESORBING TRI-PHASIC CaSO <sub>4</sub> -BASED CEMENT COMPARED TO CONVENTIONAL CaSO <sub>4</sub> PELLETS ( <u>Urban RM</u> , Turner TM, Hall DJ, Inoue N, Gitelis S)	O96. THE USE OF TITANIUM FOR OSTEOSYNTHESIS IN RABBITS BY THREADED PINS ( <u>Spinelli M</u> , Gabellieri P, Pingitore R, Dini F, Faviana P, Odoguardi F, Carlucci F)
15.20	O90. STRAIN INDUCED RELEASE OF BMP-7 FROM FRESH FROZEN FEMORAL HEAD ALLOGRAFT (Board N, <u>Gowaily K</u> , Rooney P, Kay PR)	O97. MECHANICAL STRENGTH EVOLUTION OF A RECONSTRUCTED FEMUR DURING FOLLOW-UP ( <u>Taddei F</u> , Martelli S, Montanari L, Greco V, Leardini A, Viceconti M, Manfrini M)
15.30	O91. ECTOPIC PREFABRICATION OF BONE FLAPS ( <u>Scheufler O</u> , Schaefer DJ, Jaquier C, Braccini A, Wendt D, Pierer G, Heberer M, Martin I)	O98. BIOMECHANICAL ANALYSIS OF SLIPPED CAPITAL FEMORAL EPIPHYSIS ( <u>Gómez-Benito MJ</u> , Paseta O, García-Aznar JM, Barrios C, Gascó J, Doblaré M)

## 15.45 Coffee-break

	<b>AULA MAGNA</b> <b>Session 15 - Clinical Research 4</b> Chairmen: E. Gómez-Barrena, M. Mulier	<b>ANFITEATRO</b> <b>Session 16 - Tissue Engineering 3</b> Chairmen: D.P. Pioletti, W. Richter
16.00	O99. OSTEOCHONDRAL ALLOGRAFT REPLACEMENT IN CONDYLE RESECTION OF THE KNEE ( <u>Bianchi G</u> , Donati D, Staals E, Colangeli M, Mercuri M)	O106. EXPERIMENTAL RESURFACING OF ARTICULAR CARTILAGE BY EMBRYONIC STEM CELLS ( <u>Manunta A</u> , Manunta ML, Sanna Passino E, Dattena M)
16.10	O100. THE COMBINATION VASCULARISED FIBULA/MASSIVE BONE ALLOGRAFT FOR TIBIA INTERCALARY RECONSTRUCTIONS: IMAGING ANALYSIS AT AN OVER 5-YEAR FOLLOW-UP ( <u>Manfrini M</u> , Taddei F, Malaguti C, De Paolis M, Ceruso M, Mercuri M)	O107. MESENCHYMAL STEM CELL AND NUCLEUS PULPOSUS CELL INTERACTIONS: DIFFERENTIATION, STIMULATORY EFFECTS, AND CELL FUSION ( <u>Vadalà G</u> , Spiezia F, Denaro E, Kang JD, Gilbertson L)
16.20	O101. REPAIR OF CARTILAGE LESIONS BY PERFORATIONS OF SUBCHONDRAL BONE AND IMPLANT OF A COLLAGEN TYPE I/II MEMBRANE ( <u>Gigante A</u> , Guzzanti V, Giordano M, Bevilacqua C, Greco F)	O108. SELF-ASSEMBLED MONOLAYERS AND CARBON NANOTUBES AS NEW TOOLS TO IMPROVE BONE REGENERATION: AN <i>IN VITRO</i> APPROACH ( <u>Ciapetti G</u> , Pagani S, Dettin M, Gambaretto R, Marletta G, Armentano I, Kenny J, Baldini N, Alava JI)
16.30	O102. VARUS POSTEROMEDIAL ROTATIONAL ELBOW INJURIES ( <u>Doornberg JN</u> , Ring D)	O109. NO EFFECT OF LOAD ON CARTILAGE FORMATION IN DEFECTS RECONSTRUCTED WITH POLYESTERURETHANES ( <u>van Meel M</u> , Ramrattan NN, Heijkants RGJC, Schouten AJ, Veth RPH, Buma P)
16.40	O103. CORONOID FRACTURE PATTERNS ( <u>Doornberg JN</u> , Ring D)	O110. AUTOLOGOUS BONE MARROW DERIVED-CELLS IMPROVE MUSCLE STRENGTH AFTER SKELETAL MUSCLE CRUSH INJURY IN RATS ( <u>Winkler T</u> , Matziolis G, Stoltenburg G, Schaser KD, Perka C, Duda GN)
16.50	O104. LONG TERM OUTCOME OF OPERATIVELY TREATED COMPLEX OLECRANON FRACTURES ( <u>Lindenhovius ALC</u> , Doornberg JN, Mudgal CS, Ring D, Kloen P)	O111. ELECTROSPUN NANOFIBERS OF DIFFERENT POLYMERS AS SCAFFOLDS FOR TISSUE ENGINEERING ( <u>Boudriot U</u> , Dersch R, Wack Ch, Fuchs S, Greiner A, Wendorff JH)
17.00	O105. UPPER EXTREMITY FRACTURES FOLLOWING FRONTAL VEHICLE CRASHES IN A LEVEL ONE TRAUMA CENTRE ( <u>Kwong Y</u> , Chong M, Sochor M, Wang S)	O112. GENE EXPRESSION PROFILING OF HUMAN MESENCHYMAL STEM CELLS DURING EXPANSION AND OSTEOBLAST DIFFERENTIATION ( <u>Friedl G</u> , Kulterer B, Jandrositz A, Windhager R, Trajanoski Z)

## POSTER SESSION

### CLINICAL RESEARCH (P1-P49)

- P1. COMPARISON OF ELBOW CONTRACTURE RELEASE IN PATIENTS WITH AND WITHOUT HETEROTOPIC OSSIFICATION (Lindenhovius ALC, Doornberg JN, Linzel D, Ring D)
- P2. ANALYSIS OF POSTOPERATIVE COMPLICATIONS IN COMPLEX DECOMPRESSION ELDERLY PATIENTS AS A FUNCTION OF COMORBIDITY (Eidelson S, Wilkerson J)
- P3. ANALYSIS OF EX VIVO METAL-ON-METAL FIRST METATARSOPHALANGEAL PROSTHESIS AND ASSESSMENT AGAINST THEORETICAL LUBRICATION REGIMES (Joyce TJ)
- P4. MODULAR ANKLE-FOOT ORTHOSIS WITH SPRING ELEMENTS (Milusheva S, Karastanev S, Toshev Y)
- P5. INTELLIGENT ACTIVE ANKLE-FOOT ORTHOSIS (Veneva I, Toshev Y)
- P6. OUTCOME FOLLOWING SCAPHOID BRUISING (Kanagaraj K, Khalid M, Jummani Z, Robinson D, Walker R)
- P7. CARTILAGE THICKNESS IN THE HIP JOINT MEASURED BY MRI AND STEREOLOGY (Mechlenburg I, Nyengaard JR, Rømer L, Søballe K)
- P8. BONE RESECTION AND MINOR AMPUTATION FOR SURGICAL TREATMENT OF CHRONIC OSTEOMYELITIS IN DIABETIC FOOT (Rosa MA, Galli M, Alesci M, Caminiti R)
- P9. THE VALUE OF POSTMENISCECTOMY MRI: "DECEPTION OR DIRECTION?" (D'Hooghe P, Vandekerckhove B, De Rycke J, De Grootte W)
- P10. CD34+ CELLS IN THE NORMAL AND PATHOLOGICAL HUMAN MENISCUS (Verdonk PCM, Forsyth R, Verdonk R, Almqvist KF, Verbruggen G)
- P11. NEW MULTIDIRECTIONAL ORTHOSIS FOR THE TREATMENT OF CONGENITAL CLUBFOOT (Ferrari D, Magnani M, Lampasi M, Donzelli O)
- P12. PREDICTION AND PROPHYLACTIC FIXATION OF CONTRALATERAL HIP IN SCFE USING SKELETAL BONE AGE (Gorva AD, Metcalfe J, Jones S, Fernandes JA)
- P13. ANATOMICAL AND MORPHOLOGICAL VARIATIONS IN LUMBAR SPINE IN CHILDREN WITH OSTEOGENESIS IMPERFECTA (Gorva AD, Bishop NJ, Cole A)
- P14. USE OF STEM CELLS IN SURGICAL TREATMENT OF CONGENITAL PSEUDARTHROSIS IN CHILDREN (Magnani M, Lampasi M, Granchi D, Devescovi V, Donzelli O)
- P15. AN ANALYSIS OF BONE STRUCTURAL CHANGES IN PROTEUS SYNDROME AND THEIR RELATIONSHIP WITH GROWTH (Pazzaglia UE, Beluffi G, Bonaspetti G, Ranchetti F, Azzola F)
- P16. EPIPHYSEAL DYSPLASIAS. AN OVERVIEW ON CLASSIFICATION AND PATHOLOGY (Pazzaglia UE, Benetti A, Bondioni MP, Bonaspetti G, Beluffi G, Donzelli C)
- P17. THE TREATMENT WITH ESWT OF CUFF ROTATOR CALCIFYING TENDONITIS VERSUS SHOULDER IMPINGEMENT SYNDROME (Vitali M, Peretti GM, Mangiavini L, Frascini GF)
- P18. THE TRUE INCIDENCE OF RECURRENT DISC HERNIATION AFTER LUMBAR DISCECTOMY (Nishimura Y)
- P19. VERTEBRAL STRENGTH AND STIFFNESS AFTER KYPHOPLASTY OF OSTEOPOROTIC SPINE FRACTURES (Steens J, Verdonschot NJJ, Aalsma AMM, Veldhuizen AG, Hosman AJF)
- P20. EXTENSION OF THE INDICATION FOR BALLOON KYPHOPLASTY IN ADVANCED OSTEOPOROTIC VERTEBRAL BODY FRACTURES WITH POSTERIOR WALL INVOLVEMENT (Wagner N, Böhm B, Klonschinski T, Drees P, Heine J)
- P21. MID TO LONG-TERM RESULTS OF MODULAR NECKS IN PRIMARY UNCEMENTED TOTAL HIP ARTHROPLASTY (Aldinger PR, Wendt S, Gattermann S, Heisel C, Aldinger G)
- P22. CUSTOM MADE UNCEMENTED TITANIUM STEMS IN VERY YOUNG PATIENTS. EXCELLENT 10 YEAR SURVIVAL IN 33 PATIENTS UNDER THE AGE OF 40 (Aldinger PR, Wendt S, Jung A, Gattermann S, Aldinger G)
- P23. DEVELOPMENT OF AN OVERNIGHT STAY TOTAL HIP REPLACEMENT PROGRAMME (Apthorp H, Chettiar K, David L, Worth R)
- P24. REDUCTION OF OSTEOLYSIS WITH CROSSLINKED POLYETHYLENE: FIVE

- YEAR IN VIVO RESULTS (Bitsch RG, Heisel C, Ball S, Schmalzried TP)
- P25. METAL ION RELEASE IN PATIENTS WITH FAILED TOTAL KNEE ARTHROPLASTY (Bochicchio V, Savarino L, Tigani D, Ferrara T, Maci G, Greco M, Baldini N, Giunti A)
- P26. REGISTER OF HIP PROSTHESIS IN THE REGION EMILIA-ROMAGNA: A FIVE YEAR EXPERIENCE (Bordini B, Stea S, De Clerico M, Toni A)
- P27. A RANDOMISED PROSPECTIVE TRIAL COMPARING CERAMIC ON CERAMIC VERSUS METAL ON POLYETHYLENE BEARINGS IN THR (Bucher TA, Cottam HL, Apthorp HD, Butler-Manuel PA)
- P28. A RANDOMISED PROSPECTIVE TRIAL COMPARING METHODS OF ACETABULAR IMPLANT FIXATION IN PRIMARY TOTAL HIP REPLACEMENT: EARLY RESULTS (Bucher TA, Cottam HL, Apthorp HD, Butler-Manuel PA)
- P29. THE USE OF THE ULTRASONIC SCALPEL IN MINIMALLY INVASIVE TOTAL HIP REPLACEMENT (Chettiar K, David L, Worth R, Apthorp H)
- P30. OVERNIGHT HOSPITAL STAY FOR MINIMALLY INVASIVE BILATERAL TOTAL HIP REPLACEMENTS (Chettiar K, Findlay I, Apthorp H)
- P31. RELATIONSHIP BETWEEN BIOMETRIC CHARACTERISTICS AND STEM SIZE OF CEMENTLESS HIP PROSTHESES (De Clerico M, Bordini B, Stea S, Viceconti M, Toni A)
- P32. A TANTALUM MONOBLOCK POROUS CUP AND ACETABULAR REPLACEMENT. A FIVE YEAR FOLLOW-UP STUDY (Fadda M, Zirattu G, Zirattu F, Tranquilli Leali P)
- P33. WEAR PARTICLES IN FAILED TOTAL HIP REPLACEMENTS MADE OF Ti ALLOY (Figurska M, Milošev I, Cör A)
- P34. PREDICTING THE NEED FOR URINARY CATHETERISATION FOLLOWING LOWER LIMB TOTAL JOINT ARTHROPLASTY. USE OF PATIENT QUESTIONNAIRES (Fox A, Board TN)
- P35. BIRMINGHAM HIP RESURFACING IN A PATIENT WITH TAY SYNDROME (Katipalli G, Ganapathi M, Woodnutt D)
- P36. FAILURE OF THE UNCOATED TITANIUM PROXILOCK™ FEMORAL HIP PROSTHESIS (Luites J, Spruit M, Hellemond G, Horstmann W, Valstar E)
- P37. METAL ION RELEASE FROM FRACTURE FIXATION DEVICES (Maci G, Savarino L, Ferrara T, Bochicchio V, Greco M, Baldini N, Giunti A)
- P38. SIMPLE TWO-DIMENSIONAL COMPUTER-ASSISTED TECHNIQUE FOR RADIOGRAPHIC ASSESSMENT OF POLYETHYLENE WEAR AFTER TOTAL HIP ARTHROPLASTY (Sandoval MA, Suarez-Vazquez A, Fernandez-Lombardia J, Hernandez-Vaquero D)
- P39. SERUM LEVELS OF OSTEOPROTEGERIN (OPG) AND 'RECEPTOR ACTIVATOR OF NUCLEAR FACTOR-K LIGAND' (RANKL) IN PATIENTS WITH TOTAL HIP PROSTHESIS (Spina M, Pellacani A, Amato I, Baldini N, Giunti A, Granchi D)
- P40. DIAGNOSTIC PROCEDURES WITH SUSPICION OF PERIPROSTHETIC INFECTION (Wendrich K, Siegel E, Hansen T, Drees P, Schöllner C, Eckardt A)
- P41. TREATMENT OF SUPRACONDYLAR FEMORAL FRACTURES AROUND TOTAL KNEE REPLACEMENT WITH RETROGRADE INTRAMEDULLARY NAILING (Chettiar K, Jackson M, Brewin J, Dass D, Miles K, Butler-Manuel PA)
- P42. TOTAL MENISCAL KNEE (TMK). CLINICAL EVALUATION OF CEMENTED VERSUS HYDROXYAPATITE COATED PROSTHESES (Cottam HL, James K, Jack C, Miles K, Apthorp HD, Butler-Manuel PA)
- P43. THE S-ROM NOILES ROTATING HINGE KNEE-SYSTEM USED IN REVISION ARTHROPLASTY (Frank C, Krämer P, Wentzensen A, Schulte-Bockholt D)
- P44. DELAYED ONSET DEEP INFECTION AFTER TOTAL KNEE ARTHROPLASTY: COMPARISON BASED ON THE INFECTING ORGANISM (Joshy S, Thomas B, Gogi N, Mahale N, Singh BK)
- P45. ETHNIC DIFFERENCES IN PREOPERATIVE FUNCTION IN PATIENTS UNDERGOING TOTAL KNEE ARTHROPLASTY (Joshy S, Datta A, Gogi N, Singh BK)
- P46. A COMPUTER-ASSISTED SURGICAL TECHNIQUE FOR TOTAL KNEE ARTHROPLASTY REVISION (Marcacci M, Nofrini L, Bignozzi S, Iacono F, Zaffagnini S, Lo Presti M, Di Martino A)
- P47. IS ARTHRODESIS, IN INFECTED RE-REVISION ARTHROPLASTIES OF THE KNEE, AN UPDATE PROCEDURE? (Rosa MA, Centofanti F, Villari L, Caminiti R, Alesci M)
- P48. COMPUTER-ASSISTED SURGERY IN TKA WITH DEFORMITIES: A PROSPECTIVE



STUDY (Sandoval MA, Hernandez-Vaquero D, Suarez-Vazquez A, Gava R)

P49. WITHDRAWN

P50. MICROENDOSCOPIC POSTERIOR DECOMPRESSION FOR LUMBAR SPINAL STENOSIS (Ikuta K, Tono O, Tanaka T, Arima J, Nakano S, Sasaki K, Fukagawa S, Oga M)

#### **BIOMECHANICS - IMPLANTS (P50-P72)**

P51. CALCULATION OF LUBRICATION REGIMES IN TWO-PIECE FIRST METATARSOPHALANGEAL IMPLANTS (Joyce TJ)

P52. INTRA-OPERATIVE STABILITY OF CEMENTLESS HIP IMPLANTS BASED ON VIBRATIONAL TECHNIQUE (Bialoblocka E, Varini E, Lannocca M, Cappello A, Cristofolini L)

P53. THE DISTRIBUTION OF BONE DENSITY OF THE PROXIMAL TIBIA AS DETERMINED BY MULTISLICE CT SCANNING (Cottam HL, Shepperd JAN, Taylor M)

P54. OSTEOLYSIS IS INDUCED BY FLUID PRESSURE BUT NOT BY TRAUMA TO THE MEMBRANE (Fahlgren A, Aspenberg P)

P55. RELIABILITY OF DIGITAL TEMPLATING IN TOTAL HIP ARTHROPLASTY (Franken M, Schönhuth C, Grimm B, van Asten W, Heyligers IC)

P56. X-RAY CALIBRATION IN DIGITAL TEMPLATING: A SOURCE OF ERROR IN TOTAL HIP ARTHROPLASTY (Grimm B, Franken M, Schönhuth C, Tonino AJ, Heyligers IC)

P57. PERIPROSTHETIC FRACTURES IN ELDERLY PATIENTS: AN EXPERIMENTAL STUDY ON CEMENTLESS VS CEMENTED SYSTEM (Jakubowitz E, Seeger J, Clarius M, Thomsen M)

P58. PRE-CLINICAL TESTING OF A NOVEL CEMENTLESS HIP IMPLANT (Janssen D, Thümler P, Verdonschot N)

P59. MODEL-BASED RSA OF A HIP STEM USING GEOMETRICAL SHAPE MODELS (Kaptein BL, Valstar ER, Spoor CW, Stoel BC, Reiber JHC, Rozing PM)

P60. ISO TESTING OF EXPLANTED HIP STEM PROTHESES (Kretzer JP, Lee C, Heisel C, Thomsen M)

P61. INITIAL STABILITY OF CEMENTLESS CUSTOM-MADE HIP PROTHESES:

GEOMETRICAL CONSIDERATIONS (Labey L, Jaecques SVN, Gelaude F, Mulier M, Van der Perre G)

P62. WHICH LENGTH DO WE NEED FOR GOOD PRIMARY STABILITY IN THA? (Lee C, Jakubowitz E, Bitsch R, Thomsen M)

P63. PRE-CLINICAL VALIDATION OF A NEW CONSERVATIVE PROXIMAL EPIPHYSEAL REPLACEMENT (Martelli S, Moindreau M, Rushton N, Field R, Viceconti M)

P64. BIOMECHANICAL CHARACTERIZATION OF THE PROXIMAL INTACT FEMUR (Pallini F, Juszczak M, Schileo E, Taddei F, Cristofolini L)

P65. SAMPLE SIZING MULTI-FEMUR FINITE ELEMENT ANALYSIS OF IMPLANT DESIGNS (Radcliffe I, Prescott P, Man HS, Taylor M)

P66. WITHDRAWN

P67. STRAIN PREDICTIONS ACCURACY IN FINITE ELEMENT MODELS OF LONG BONES FROM CT DATA (Schileo E, Taddei F, Helgason B, Pallini F, Cristofolini L, Viceconti M)

P68. DEXA ANALYSIS TO COMPARE BONE REMODELLING BETWEEN IMPLANT TYPES: THE INFLUENCE OF MATCHING PATIENTS FOR PREOPERATIVE BONE QUALITY (van der Wal BCH, Rahmy A, Grimm B, Blake GM, Heyligers IC, Tonino AJ)

P69. COMPONENT ALIGNMENTS IN NAVIGATED TKA (Ensini A, Bianchi L, Leardini A, Catani F)

P70. THE EFFECT OF A MOBILE BEARING TOTAL KNEE PROsthESIS ON CO-CONTRACTION DURING A STEP-UP TASK (Garling E, Wolterbeek N, Velzeboer S, Nelissen R, Valstar E, Doorenbosch C, Harlaar J)

P71. CAN A THICKER ALL-POLYETHYLENE UNICONDYLAR COMPONENT PROTECT THE TIBIAL BONE? (Jeffers JRT, Aram L, Fitzpatrick D, Barrett DS, Taylor M)

P72. SURFACE GUIDED TOTAL KNEE USING KINEMATIC CRITERIA (Walker PS)

#### **BIOMECHANICS - FRACTURES (P73-P84)**

P73. SUPRACONDYLAR HUMERUS FRACTURES IN CHILDREN: A BIOMECHANICAL ANALYSIS OF FOUR METHODS FOR OSTEOSYNTHESIS (Castellani C, Weinberg AM, Arzdorf M, Schneider E, Gasser B, Linke B)

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- P190. EFFICACY AND BIOLOGICAL COMPATIBILITY OF A NEW PROCESSING TECHNIQUE FOR FRESH FROZEN FEMORAL HEADS AND COMPARISON WITH CURRENT WASHING PROCEDURES (Board TN, Mann J, Eagle M, Rooney P, Kearney JN, Kay PR)
- P191. EVALUATION OF A BIPHASIC CALCIUM PHOSPHATE CERAMIC IMPLANTED DURING OPEN WEDGE MEDIAL TIBIAL OSTEOTOMY (Rouvillain JL, Pascal-Moussellard H, Lavallé F, Catonné Y, Delattre O, Daculsi G)
- P192. CELL-INDUCED BIODEGRADATION OF POLY(L-LACTIC ACID) FIBER-REINFORCED POLY( $\epsilon$ -CAPROLACTONE) SCAFFOLDS FOR BONE REGENERATION (Taddei P, Di Foggia M, Pagani S, Ciapetti G, Guarino V, Causa F, Ambrosio L, Fagnano C)