**SUNDAY 24 MAY, 2009**

**09:00 – 10:00 ORALS 1: Calcium regulating hormones**

Chairs: Anna Teti (L'Aquila, Italy)
Meinrad Peterlik (Vienna, Austria)

**09:00 OC04 HORMONES AND FRACTURE RISK IN POSTMENOPAUSAL WOMEN: THE OPUS STUDY**

J. Finigan*[1], F. Gossiel[1], D. M. Reid[2], C. Roux[3], D. Felsenberg[4], C. C. Glueer[5], R. Eastell[1]
*[1]Academic Unit of Bone Metabolism, University of Sheffield, Sheffield, [2]Department of Medicine and Therapeutics, University of Aberdeen, Aberdeen, United Kingdom, [3]Faculte de Medicine, Rene Descartes Universite, Paris, France, [4]ZMK, Charite Universitaetsmedizin, Berlin, [5]Diagnostische Radiologie, Universitaetsklinikum Schleswig-Holstein, Kiel, Germany*

**09:12 OC05 THE NEURONAL NOS KNOCKOUT BONE PHENOTYPE IS SEX-DEPENDENT AND HYPER-SENSITIVE TO OVARIECTOMY AND ESTROGEN**

A. Thomas[1], L. Rose[1], S. H. Ralston[1], R. J. van 't Hof*[1]
*[1]Rheumatic Diseases Unit, University of Edinburgh, Edinburgh, United Kingdom*

**R. J. van 't Hof - 2006 ECTS Career Establishment Award winner**

**09:24 OC06 TSH AND VITAMIN D SYNERGISTICALLY EFFECT BONE LOSS IN RATS WITH REMOVED THYROID AND PARATHYROID GLANDS**

N. Draca*[1], Z. Giljevic[2], Z. Kusic[3], P. Simic[1], A. Tikvica[1], M. Jovancevic[1], S. Vukicevic[1]
*[1]Laboratory for Mineralized Tissues, School of Medicine, University of Zagreb, [2]Department of Endocrinology, Diabetes and Metabolism, University Hospital Centre Zagreb, [3]Department of Oncology and Nuclear Medicine, University Hospital "Sestre Milosrdnice", Zagreb, Croatia*

**09:36 OC07 GENDER SPECIFIC EFFECTS OF THE CALCIUM CHANNEL TRPV4 ON OSTEOPOROTIC FRACTURE RISK AND OSTEOBLAST-OSTEOCLAST COUPLING**

B. C. J. van der Eerden*[1], M. Schreuders-Koedam[1], F. Rivadeneira[1], J. B. van Meurs[1], J. G. J. Hoenderop[2], H. Weinans[3], M. Suzuki[4], R. J. M. Bindels[2], A. G. Uitterlinden[1], J. P. T. M. van Leeuwen[1]
*[1]Internal Medicine, Erasmus MC, Rotterdam, [2]Cell Physiology, NCMLS, Radboud University Medical Centre, Nijmegen, [3]Orthopedics, Erasmus MC, Rotterdam, Netherlands, [4]Molecular Pharmacology, Yichi Medical School, Tochigi, Japan*

**09:48 OC08 DOES THE GROWTH HORMONE-DERIVED PEPTIDE AOD9604 HAVE AN ANABOLIC EFFECT ON BONE?**

I. Kamikovski[1], R. Renlund[2], M. D. Grynpas*[1]
*[1]Samuel Lunenfeld Research Institute, Mount Sinai Hospital, [2]Department of Laboratory Medicine and Pathobiology, University of Toronto, Toronto, Canada*

**15:12 – 16:12** **ORALS 2: Osteoclasts and bone resorption**

Chairs: Erwin Wagner (Madrid, Spain)
Elisabeth Zwettler (Vienna, Austria)

**15:12 OC09 NEONATAL BONE MARROW TRANSPLANTATION WITHOUT PRIOR CONDITIONING RAPIDLY REVERSES OSTEOPETROSIS IN OC/OC MICE DESPITE ONLY MINIMAL DONOR CELL ENGRAFTMENT**

C. Flores*[1], T. J. de Vries[2], M. K. Askmyr[1], T. Schoenmaker[2], M. Ehinger[3], V. Everts[2], J. Richter[1]
*[1]Molecular Medicine and Gene Therapy, University of Lund, Lund, Sweden, [2]Department of Periodontology and Oral Cell Biology, ACTA, University of Amsterdam and VU University Amsterdam, Amsterdam, Netherlands, [3]Department of Pathology, University Hospital, Lund, Sweden*

**15:24 OC10 DEFICIENCY OF CHEMOKINE RECEPTORS CCR1, CCR5 AND CX3CR1 CAUSES DEFECTIVE OSTEOCLAST DIFFERENTIATION AND DEFECTIVE BONE REMODELING**

A. Hoshino*[1], S. Ueha[2], T. Imai[3], T. Kirino[4], K. Matsushima[2], K. Yamamoto[1]
*[1]International Clinical Research Center, Research Institute, International Medical Center of Japan, Shinjuku-ku, Tokyo, [2]Department of Molecular Preventive Medicine, Graduate School of Medicine, University of Tokyo, Bunkyo-ku, Tokyo, [3]Kan Research Institute, Inc., Kobe, [4]International Medical Center of Japan, Shinjuku-ku, Tokyo, Japan*

**15:36 OC11 TNF-INDUCED OSTEOCLASTOGENESIS, ARTHRITIS AND BONE LOSS ARE LIMITED THROUGH INCREASED EXPRESSION OF TRAF3 AND NF-KAPPA B2 P100**

B. F. Boyce*[1], Z. Yao[1], L. Xing[1]
*[1]Department of Pathology and Laboratory Medicine, University of Rochester Medical Center, Rochester, United States*

**15:48 OC12 DIRECTED DIFFERENTIATION OF HUMAN EMBRYONIC STEM CELLS AND INDUCED PLURIPOTENT STEM CELLS TO FUNCTIONAL OSTEOCLASTS**

A. E. Grigoriadis*[1], M. Kennedy[2], A. Bozec[3], G. Stenbeck[4], E. F. Wagner[3], G. Keller[2]
*[1]Department of Craniofacial Development, King's College London, London, United Kingdom, [2]McEwen Centre for Regenerative Medicine, University Health Network, Toronto, Canada, [3]Spanish National Cancer Research Centre, (CNIO), Madrid, Spain, [4]School of Health Sciences and Social Care, Brunel University, Uxbridge, United Kingdom*

**16:00 OC13 OSTEOCLAST DEFECTS IN XLA PATIENTS ARE NEGATED BY LACK OF MATURE B CELLS AND ELEVATED INFLAMMATORY CYTOKINE PRODUCTION**

L. Danks*[1], S. Workman[2], V. Nicolaidou[1], D. A. Webster[2], B. M. Foxwell[1], N. J. Horwood[1]
*[1]Kennedy Institute of Rheumatology, Imperial College London, [2]Department of Immunology, Royal Free and University College Medical School, London, United Kingdom*

**MONDAY 25 MAY, 2009**

**09:00 – 10:00 ORALS 3: Osteoporosis pathophysiology**

Chairs: Socrates Papapoulos (Leiden, Netherlands)
Elisabeth Preisinger (Vienna, Austria)

**09:00 OC14 AGE-, SEX- AND SPINAL LEVEL-SPECIFIC DIFFERENCES IN BONE DENSITY, GEOMETRY, AND COMPRESSIVE STRENGTH OF THORACIC AND LUMBAR VERTEBRAE**

B. A. Christiansen[1], S. Demissie-Banjaw[2], B. J. Roberts[1], M. J. Valentine[1], S. R. Shah[1], S. Iyer[1], E. J. Samelson[3], D. P. Kiel[3], M. L. Bouxsein*[1]
*[1]Orthopedic Biomechanics Laboratory, Beth Israel Deaconess Medical Center, [2]Biostatistics, Boston University, [3]Institute for Aging Research, Hebrew Senior Life, Boston, United States*

**09:12 OC15 NEGATIVE INFLUENCE OF LATER PUBERTAL MATURATION ON BONE INTEGRITY IN HEALTHY WOMEN IS ALREADY DETERMINED IN CHILDHOOD**

T. Chevalley*[1], J. Bonjour[1], S. Ferrari[1], R. Rizzoli[1]
*[1]Division of Bone Diseases, Department of Rehabilitation and Geriatrics, Geneva University Hospitals and Faculty of Medicine, Geneva, Switzerland*

**09:24 OC16 BURDEN OF NON-HIP-NON-VERTEBRAL FRACTURES IN POSTMENOPAUSAL WOMEN 55 YEARS AND OLDER. THE GLOBAL LONGITUDINAL STUDY OF OSTEOPOROSIS IN WOMEN**

C. Roux*[1], S. Boonen[2], R. D. Chapurlat[3], J. Compston[4], A. Díez-Pérez[5], S. L. Greenspan[6], J. C. Netelenbos[7], J. Pfeilschifter[8], M. Rossini[9], P. Sambrook[10], G. Nika[11], N. B. Watts[12]
*[1]Centre D' Evaluation Des Maladies Osseuses, Hôpital Cochin, Paris, France, [2]Division Geriatric Medicine, Katholieke Universiteit Leuven, Leuven, Belgium, [3]Department Orthopedics and Rheumatology, Hôpital Edouard Herriot, Lyon, France, [4]University of Cambridge School of Clinical Medicine, Addenbrooke's Hospital, Cambridge, United Kingdom, [5]Autonomous University of Barcelona, Hospital Del Mar, Barcelona, Spain, [6]Osteoporosis Center, University of Pittsburgh, Pittsburgh, United States, [7]Department Endocrinology, VU University Medical Center, Amsterdam, Netherlands, [8]Department Internal Medicine III, Alfried Krupp Krankenhaus, Essen, Germany, [9]Department Rheumatology, University of Verona, Verona, Italy, [10]University of Sydney, Royal North Shore Hospital, Sydney, Australia, [11]Center for Outcomes Research, UMass Medical School, Worcester, [12]Bone Health and Osteoporosis Center, University of Cincinnati, Cincinnati, United States*

**09:36 OC17 ABSTRACT WITHDRAWN**

**09:48 OC18 INTERLEUKIN 6 MODULATES THE SKELETAL RESPONSE TO GLUCOCORTICOIDS DURING A RELAPSE OF INFLAMMATORY BOWEL DISEASE**

M. H. Kriel[1], A. Sayers[2], N. Tran[1], A. M. Williams[1], W. D. Fraser[3], C. S. Probert[4], J. H. Tobias*[5]
*[1]Department of Clinical Sciences at South Bristol, [2]Clinical Sciences at North Bristol, University of Bristol, Bristol, [3]School of Clinical Sciences, Unit of Clinical Chemistry, University of Liverpool, Liverpool, [4]Department of Clinical*

*Science at South Bristol, [5]Academic Rheumatology, University of Bristol, Bristol, United Kingdom*

**15:12 – 16:12** **ORALS 4: Osteoblasts and bone formation**

Chairs: Hans van Leeuwen (Rotterdam, Netherlands)
Peter Pietschmann (Vienna, Austria)

**15:12 OC19 PRIMING INTEGRIN ALPHA5 PROMOTES HUMAN MESENCHYMAL STROMAL CELL OSTEOBLAST DIFFERENTIATION AND OSTEOGENESIS**

Z. Hamidouche[1], O. Fromigue[1], J. Ringe[2], T. Haupl[2], P. Vaudin[3], S. Srouji[4], E. Livne[4], P. J. Marie*[5]
*[1]Laboratory of Osteoblast Biology and Pathology, INSERM U606 & University Paris 7, Paris Cedex 10, France, [2]Charite University Hospital, Berlin, Germany, [3]University François Rabelais, Faculty of Medicine, Tours, France, [4]Anatomy & Cell Biology Department, Faculty of Medicine, Haifa, Israel, [5]Laboratory of Osteoblast Biology and Pathology, INSERM U606 and University Paris 7, Paris Cedex 10, France*

**15:24 OC20 THE TYPE 2 CANNABINOID RECEPTOR (CB2) PROTECTS AGAINST AGE-RELATED OSTEOPOROSIS BY AFFECTING BONE FORMATION AND CB2 AGONISTS EXHIBIT ANABOLIC ACTIVITY IN VIVO**

A. Sophocleous*[1], E. Landao-Bassonga[1], R. van 't Hof[1], S. H. Ralston[1], A. I. Idris[1]
*[1]Rheumatology Unit, Molecular Medicine Centre, University of Edinburgh, Edinburgh, United Kingdom*

**A. I. Idris - 2006 ECTS / AMGEN Bone Biology Fellowship winner**

**15:36 OC21 ENGRAFTMENT AND HOMING OF HAEMATOPOIETIC STEM CELL IN OSTEOPETROTIC OC/OC MICE**

A. Mansour*[1], M. Topi[1], A. Wakkach[1], G. F. Carle[1], C. Blin-Wakkach[1]
*[1]Gépitos UMR6235, CNRS UNSA Université Nice-Sophia Antipolis, NICE, France*

**15:48 OC22 TARGETED DELETION OF ZFP521 IN OSTEOBLASTS RESULTS IN IMPAIRED BONE FORMATION AND OSTEOPENIA**

R. Kiviranta*[1], K. Yamana[1], H. Saito[1], E. Hesse[1], D. Correa[1], S. Warming[2], A. Atfi[1], W. C. Horne[1], R. Baron[1]
*[1]Department of Oral Medicine, Infection and Immunity, Harvard School of Dental Medicine, Boston, [2]Molecular Biology, Genentech, South San Francisco, United States*

**16:00 OC23 LIPOCALIN 2 IS A NOVEL MECHANORESPONDING GENE INVOLVED IN OSTEOBLAST DIFFERENTIATION AND OSTEOBLAST-OSTEOCLAST CROSS-TALK**

M. Capulli*[1], A. Rufo[1], M. Capannolo[1], A. Del Fattore[1], A. Teti[1], N. Rucci[1]
*[1]Experimental Medicine, University of L'Aquila, L'Aquila, Italy*

**TUESDAY 26 MAY, 2009**

**09:00 – 10:00 ORALS 5: Bone cells / cancer**

Chairs: Pierre Marie (Paris, France)
Paul Roschger (Vienna, Austria)

**09:00 OC24 CONNEXIN43 (CX43) MODULATES POST-NATAL BONE STRUCTURE AND STRENGTH VIA ACTIONS ON BOTH ARMS OF THE BONE REMODELING CYCLE**

S. K. Grimston[1], M. Watkins[1], M. D. Brodt[2], J. Norris[1], D. Goldberg[1], M. J. Silva[2], R. Civitelli*[1]
*[1]Division of Bone and Mineral Diseases, [2]Orthopaedic Surgery, Washington University in St. Louis, St. Louis, United States*

**09:12 OC25 NKX3.2 IS AN IMPORTANT MEDIATOR OF HYPOXIA-INDUCED CHONDROCYTIC DIFFERENTIATION**

Y. Kawato*[1], M. Hirao[1], J. Hashimoto[1], N. Tamai[1], N. Yamasaki[1], A. Nampei[1], A. Myoui[2], H. Yoshikawa[1]
*[1]Orthopaedics, Osaka University Graduate School of Medicine, [2]Medical Center for Translational Research, Osaka University Hospital, Suita, Japan*

**09:24 OC26 PRECLINICAL EVIDENCE OF USING TRAIL IN EWING'S SARCOMA THERAPY**

G. Picarda[1], F. Lamoureux[1], L. Geffroy[2], P. Delepine[3], K. Laud[4], S. Burchill[5], F. Tirode[4], O. Delattre[4], D. Heymann[1], F. Redini*[1]
*[1]INSERM U957 - Ea 3822 Pathophysiology of Bone Resorption and Therapy of Primary Bone Tumors, Faculté de Médecine, [2]Orthopaedic Department, Nantes Hospital, Nantes Cedex 1, [3]INSERM U630, Faculté de Médecine, Brest, [4]INSERM U830, Institut Curie, Paris, France, [5]Candlelighter's Children's Cancer Research Group, St James University Hospital, Leeds, United Kingdom*

**09:36 OC27 RAP-011, A SOLUBLE ACTIVIN RECEPTOR TYPE IIA MURINE IGG-FC FUSION PROTEIN, IS A NOVEL BONE ANABOLIC AGENT THAT PREVENTS BONE LOSS AND SKELETAL METASTASES IN A MOUSE MODEL OF METASTATIC BREAST CANCER**

A. W. Mulivor*[1], D. Barbosa[1], R. Kumar[2], A. E. Pearsall[2], K. W. Underwood[3], J. A. Ucran[3], J. Seehra[4], R. Pearsall[1]
*[1]Preclinical Pharmacology, [2]Bioanalytical Development, [3]Protein Biochemistry, [4]Chief Scientific Officer, Acceleron Pharma, Cambridge, United States*

**09:48 OC28 CANNABINOID RECEPTOR TYPE 1 PROTECTS AGAINST AGE-RELATED BONE LOSS BY REGULATING OSTEOBLAST AND ADIPOCYTE DIFFERENTIATION OF BONE MARROW STROMAL CELLS**

A. I. Idris*[1], A. Sophocleous[1], E. Landao-Bassonga[1], M. Merkouris[2], G. I. Milligan[2], D. Baker[3], R. J. van't Hof[1], S. H. Ralston[1]
*[1]Bone Research Group, Institute of Genetics and Molecular Medicine, Edinburgh, [2]Institute of Biomedical and Life Sciences, University of Glasgow, Glasgow, [3]Institute of Cell and Molecular Science, Barts and the London School of Medicine and Dentistry, London, United Kingdom*

**A. I. Idris - 2006 ECTS / AMGEN Bone Biology Fellowship winner**

**11:15 – 12:45 ORALS: Clinical Cases**

Chairs: Jens Bollerslev (Oslo, Norway)
Hans Bröll (Vienna, Austria)

**11:15 CC01 GERODERMIA OSTEODYSPLASTICA IS CAUSED BY MUTATIONS IN SCYL1BP1, A NOVEL RAB-6 INTERACTING GOLGIN**

U. Kornak*[1], H. Hennies[2], H. Zhang[1], J. Egerer[3], X. Zhang[1], J. Kühnisch[1], W. Seifert[2], B. Budde[2], F. Brancati[4], W. C. Wilcox[5], D. Müller[6], P. B. Kaplan[7], A. Rajab[8], G. Zampino[9], B. Dallapiccola[4], B. Steinmann[10], F. A. Barr[11], P. Nürnberg[2], P. Wieacker[12], S. Mundlos[1]

*[1]Institute for Medical Genetics, Charité Universitaetsmedizin Berlin, Berlin, [2]Cologne Center for Genomics (CCG) and Institute for Genetics, University of Cologne, Cologne, [3]RG Development and Disease, Max Planck Institute for Molecular Genetics, Berlin, Germany, [4]IRCCS-CSS, San Giovanni Rotondo, CSS-Mendel Institute, Rome, Italy, [5]Medical Genetics Institute, Cedars-Sinai Medical Center, Los Angeles, United States, [6]Institute of Medical Genetics, Klinikum Chemnitz, Chemnitz, Germany, [7]Section of Metabolic Diseases, Children's Hospital of Philadelphia, Philadelphia, United States, [8]Genetic Unit, Ministry of Health, Muscat, Oman, [9]Istituto di Clinica Pediatrica, Università Cattolica del Sacro Cuore, Rome, Italy, [10]Division of Metabolism and Molecular Pediatrics, University Children's Hospital, Zurich, Switzerland, [11]Cancer Research Centre, University of Liverpool, Liverpool, United Kingdom, [12]Institut für Humangenetik, Westfälische Wilhelms-Universität, Münster, Germany*

**11:30 CC02 CRTAP DEFICIENCY LEADS TO HIGH BONE MATRIX MINERALIZATION IN CHILDREN (OSTEOGENESIS IMPERFECTA TYPE VII) AND MICE**

N. Fratzl-Zelman*[1], R. Morello[2], B. Lee[2], F. Rauch[3], F. H. Glorieux[3], B. M. Misof[1], K. Klaushofer[1], P. Roschger[1]

*[1]Ludwig Boltzmann Institute of Osteology at Hanusch Hospital of WGKK and AUVA Trauma Centre Meidling, 4th Med. Department Hanusch Hospital, Vienna, Austria, [2]Department of Molecular and Human Genetics, Baylor College of Medicine, Houston, United States, [3]Genetics Unit, Shriners Hospital for Children, Montreal, Canada*

**11:45 CC03 ESTROGEN-SPECIFIC ACTION ON BONE GEOMETRY AND VOLUMETRIC BONE DENSITY: LONGITUDINAL OBSERVATIONS IN AN ADULT WITH COMPLETE ANDROGEN INSENSITIVITY**

Y. E. Taes*[1], B. Lapauw[1], S. Vandewalle[1], H. Zmierczak[2], S. Goemaere[2], D. Vanderschueren[3], J. M. Kaufman[1], G. T'Sjoen[1]

*[1]Department Endocrinology, [2]Unit for Osteoporosis and Metabolic Bone Diseases, Ghent University Hospital, Gent, [3]Laboratory for Experimental Medicine and Endocrinology, Katholieke Universiteit Leuven, Leuven, Belgium*

**12:00 CC04 OSTEOPATHIA STRIATA WITH CRANIAL SCLEROSIS DUE TO MUTATIONS IN THE WTX GENE**

B. Perdu*[1], F. De Freitas[1], S. Frints[2], M. Schouten[3], C. Schrander-Stumpel[2], M. Barbosa[4], J. Pinto-Basto[5], M. Reis-Lima[4], M. de Vernejoul[6], K. Becker[7], M. Freckmann[8], K. Keymolen[9], E. Haan[10], R. Savarirayan[11], R. König[12], B. Zabel[13], W. Van Hul[1]

*[1]Medical Genetics, University and University Hospital Antwerp, Wilrijk, Belgium, [2]Department of Clinical Genetics, Maastricht University Medical Center and University of Maastricht, [3]Department of Clinical Genetics, Maastricht University Medical Center, Maastricht, Netherlands, [4]Unidade de*

*Consulta , Centro de Genética Médica Jacinto Magalhães, Departamento de Genética, Instituto Nacional de Saude Dr. Ricardo Jorge, [5]Centro de Genética Preditiva e Preventiva, Instituto de Biologia Molecular e Celular, Porto, Portugal, [6]INSERM U606 and University Paris 7, Rheumatology Department, Hospital Lariboisière, Assistance Publique Hôpitaux de Paris, Paris, France, [7]North Wales Clinical Genetics Service, Glan Clwyd Hospital, Bodelwyddan Rhyl, Denbighshire, United Kingdom, [8]Department of Clinical Genetics, Nepean Hospital, Penrith, Australia, [9]Medische Genetica UZ Brussel, Vrije Universiteit Brussel, Brussel, Belgium, [10]SA Pathology, Women's and Children's Hospital site, North Adelaide, Adelaide, [11]Genetic Health services Victoria, Royal Children's Hospital Clinical Genetics Units, Parkville, Australia, [12]Institute of Human Genetics Frankfurt, Children's Hospital at Mainz and Würzburg, Frankfurt, [13]Centre for Pediatrics and Adolescent Medicine, Department of Pediatrics, University of Freiburg, Freiburg, Germany*

**15:05 – 16:05 ORALS 6: Genetics**

Chairs: André Uitterlinden (Rotterdam, Netherlands)
Barbara Obermayer-Pietsch (Graz, Vienna)

**15:05 OC29 A SYSTEMATIC EVALUATION OF 151 CANDIDATE GENES FOR THEIR ASSOCIATION WITH OSTEOPOROSIS AND OSTEOPOROTIC FRACTURE IN A META-ANALYSIS OF GENOME-WIDE ASSOCIATION DATA**

J. Richards*[1], F. K. Kavvoura[2], F. Rivadeneira[3], U. Styrkarsdottir[4], K. Estrada[3], B. Halldorsson[4], Y. Hsu[5], M. Zillikens[3], S. G. Wilson[6], B. Mullins[6], N. Amin[7], Y. A. Aulchenko[7], L. Cupples[8], P. Deloukas[9], S. Demissie[8], A. Hofman[7], A. Kong[4], D. Karasik[10], J. M. van Meurs[3], B. Oostra[11], H. A. P. Pols[3], G. Sigurdsson[4], U. Thorsteinsdottir[4], N. Soranzo[12], F. M. K. Williams[12], Y. Zhou[8], S. Ralston[13], G. Thorleifsson[4], C. M. van Duijn[7], D. Kiel[10], K. Stefansson[4], A. Uitterlinden[3], J. P. A. Ioannidis[2], T. D. Spector[12]
*[1]Medicine and Human Genetics, McGill University, Montreal, Canada, [2]Hygiene and Epidemiology, University of Ioannina, Greece, [3]Internal Medicine, Erasmus MC, Netherlands, [4], deCODE Genetics, Iceland, [5], Boston University, United States, [6]Medicine and Pharmacology, University of Western Australia, Australia, [7]Epidemiology, Erasmus MC, Netherlands, [8]Public Health, Boston University, United States, [9]Wellcome Trust Sanger Institute, United Kingdom, [10]Hebrew Senior Life, Harvard University, United States, [11]Clinical Genetics, Erasmus MC, Netherlands, [12]Twin Research and Genetic Epidemiolgoy, King's College London, [13]Molecular and Clinical Medicine, University of Edinburgh, United Kingdom*

**15:17 OC30 A RARE DELETION EVENT IN 6P25 IS ASSOCIATED WITH OSTEOPOROTIC FRACTURES IN WOMEN**

K. Estrada*[1], M. Peters[1], B. Eussen[2], A. de Klein[2], H. Pols[1], J. van Meurs[1], T. Knoch[3], F. Rivadeneira[1], A. Uitterlinden[1]
*[1]Internal Medicine, [2]Clinical Genetics, [3]Medical Informatics, Erasmus MC, Rotterdam, Netherlands*

**15:29 OC31 VARIANTS IN THE LRP5 GENE INFLUENCE BMD BOTH THROUGH COMMON VARIANTS OF SMALL EFFECT AND RARE MUTATIONS OF LARGE EFFECT IN OSTEOPOROTIC FAMILIES**

G. Sigurdsson*[1], U. Styrkarsdottir[2], B. V. Halldorsson[3], K. Stefansson[2]
*[1]Endocrinology and Metabolism, Landspitali - University Hospital, University of Iceland, [2]deCODE Genetics, [3]deCODE Genetics, University of Reykjavik, Reykjavik, Iceland*

**15:41 OC32 A GENOME-WIDE ASSOCIATION STUDY IDENTIFIES A COMMON VARIANT NEAR THE GRP22 GENE AS A NEW LOCUS INVOLVED IN PREVALENCE AND PROGRESSION OF OSTEOARTHRITIS**

H. J. M. Kerkhof*[1], I. Jonsdottir[2], I. Meulenbelt[3], L. Stolk[1], A. M. Valdes[4], G. Zhai[4], Y. Zhu[5], M. Doherty[6], S. Doherty[6], A. Tsezou[7], A. Gonzalez[8], A. Carr[9], D. T. Felson[10], U. Styrkarsdottir[2], E. P. Slagboom[3], J. Loughlin[11], F. Rivadeneira[1], A. Hofman[12], H. A. P. Pols[1], T. D. Spector[4], A. G. Uitterlinden[1], J. B. J. van Meurs[1]
*[1]Department of Internal Medicine, Erasmus Medical Centre, Rotterdam, Netherlands, [2]deCODE Genetics, Reykjavik, Iceland, [3]Department of Molecular Epidemiology, Leiden University Medical Centre, Leiden, Netherlands, [4]Twin Research and Genetic Epidemiology Unit, St. Thomas'*

*Hospital, King's College London, London, United Kingdom, [5]Department of Biostatistics, Boston University School of Public Health, Boston, United States, [6]Academic Rheumatology, University of Nottingham, Nottingham, United Kingdom, [7]Department of Biology and Genetics, University of Thessaly, Larissa, Greece, [8]Laboratorio Investigacion and Rheumatology Unit, Hospital Clinico Universitario Santiago, Santiago de Compostela, Spain, [9]Nuffield Department of Orthopaedic Surgery, Nuffield Orthopaedic Centre, Oxford, United Kingdom, [10]Clinical Epidemiology Research and Training Unit, Boston University School of Medicine, Boston, United States, [11]Musculoskeletal Research Group, Newcastle University, Institute of Cellular Medicine, Newcastle, United Kingdom, [12]Department of Epidemiology, Erasmus Medical Centre, Rotterdam, Netherlands*

**15:53 OC33 IDENTIFICATION OF NOVEL GENETIC VARIANTS THAT PREDISPOSE TO PAGET'S DISEASE OF BONE BY GENOME WIDE ASSOCIATION**

O. M. E. Albagha*[1], M. R. Visconti[1], N. Alonso[1], P. L. Riches[1], A. L. Langston[1], T. Cundy[2], G. C. Nicholson[3], J. P. Walsh[4], W. D. Fraser[5], A. Tenesa[6], M. Dunlop[6], M. J. Hooper[7], S. H. Ralston[1]

*[1]Rheumatic Diseases Unit, University of Edinburgh, Edinburgh, United Kingdom, [2]Department Medicine, University of Auckland, Auckland, New Zealand, [3]Department Clinical and Biomedical Sciences, University of Melbourne, Melbourne, [4]Department Endocrinology, Sir Charles Gairdner Hospital, Perth, Australia, [5]Department Clinical Chemistry, Royal Liverpool University Hospital, Liverpool, [6]MRC Human Genetic Unit, Institute of Genetics and Molecular Medicine, Edinburgh, United Kingdom, [7]Department Medicine, University of Sydney, Sydney, Australia*

**16:30 – 17:30 ORALS 7: Osteoporosis treatment**

Chairs: Michael McClung (Portland, USA)
Stefan Kudlacek (Vienna, Austria)

**16:30 OC34 ONCE-YEARLY ZOLEDRONIC ACID INREASES THE PROXIMAL FEMUR STRENGTH AS ASSESSED BY FINITE ELEMENT ANALYSIS OF QCT SCANS**

L. Yang*[1], A. V. Sycheva[1], L. Palermo[2], D. M. Black[2], R. Eastell[1]
*[1]Academic Unit of Bone Metabolism, University of Sheffield, Sheffield, United Kingdom, [2]Department of Epidemiology & Biostatistics, University of California, San Francisco, United States*

**16:42 OC35 ARE PATIENTS TREATED WITH ORAL BISPHOSPHONATES AT INCREASED RISK OF ESOPHAGEAL CANCER?**

B. Abrahamsen*[1], P. A. Eiken[2], R. Eastell[3]
*[1]Department of Medicine F, Copenhagen Univ Hosp Gentofte, Hellerup, [2]Medicine and Cardiology, Hillerød Hospital, Hillerød, Denmark, [3]Metabolic Bone Centre, University of Sheffield, Sheffield, United Kingdom*

**16:54 OC36 STRONTIUM RANELATE HAS A MORE POSITIVE INFLUENCE THAN ALENDRONATE ON DISTAL TIBIA CORTICAL AND TRABECULAR BONE MICROSTRUCTURE IN WOMEN WITH POSTMENOPAUSAL OSTEOPOSROSIS**

R. Rizzoli*[1], D. Felsenberg[2], M. Laroche[3], E. Seeman[4], M. Krieg[5], I. Frieling[6], T. Thomas[7], P. Delmas[8]
*[1]Département de Réhabilitation et Gériatrie, Hôpital Cantonal, Genève, Switzerland, [2]Klinik und Poliklinik für Radiologie and Nuklearmedizin, Charité Campus Benjamin Franklin, Berlin, Germany, [3]Département de Rhumatologie, CHU - Hôpital de Rangueil, Toulouse, France, [4]Endocrinology Unit, University of Melbourne, Melbourne, Australia, [5]Department of Muskuloskeletal Medicine, CHUV, Lausanne, Switzerland, [6]-, Osteoporosezentrum, Hamburg, Germany, [7]INSERM U 890, University Hospital, Saint-Etienne, [8]Service de Rhumatologie et Pathologie Osseuse, Hôpital Edouard Herriot, Lyon, France*

**17:06 OC37 ARE OSTEOCLASTS NECESSARY FOR PTH BONE FORMING ACTIONS? EVIDENCE IN OVARIECTOMIZED HURANKL KNOCK-IN MICE TREATED WITH DENOSUMAB OR ALENDRONATE**

D. D. Pierroz*[1], P. A. Baldock[2], N. Bonnet[1], P. J. Kostenuik[3], S. L. Ferrari[1]
*[1]Rehabilitation and Geriatrics, Geneva University Hospital and Faculty of Medicine, Geneva, Switzerland, [2]Bone and Mineral Research Program, Garvan Institute of Medical Research, Sydney, Australia, [3]Metabolic Disorders Research, Amgen Inc., Thousand Oaks, United States*

**17:18 OC38 ARZOXIFENE VERSUS RALOXIFENE: 12-MONTH EFFECTS ON BONE MINERAL DENSITY, BONE TURNOVER MARKERS, AND SAFETY PARAMETERS IN POSTMENOPAUSAL WOMEN WITH OSTEOPOROSIS**

D. Kendler*[1], S. Palacios[2], D. Cox[3], J. Stock[3], S. Dowsett[3], J. Zanchetta[4]
*[1]Department of Medicine, University of British Columbia, Vancouver, Canada, [2]Director, Palacios Institute of Women's Health, Madrid, Spain, [3]Eli Lilly and Company, Lilly Corporate Center, Indianapolis, United States, [4]Instituto de Investigaciones Metabolicas, USAL University, Buenos Aires, Argentina*

**WEDNESDAY 27 MAY, 2009**

**10:00 – 11:45 HOT TOPICS**

Chairs: Richard Eastell (Sheffield, UK)
Klaus Klaushofer (Vienna, Austria)

**10:00 OC39 ABSTRACT WITHDRAWN**

**10:12 OC40 ZINC FINGER PROTEIN 521 IS REQUIRED FOR ANABOLIC ACTION OF PARATHYROID HORMONE**

K. Yamana*[1], R. Kiviranta[1], H. Saito[1], E. Hesse[1], D. Correa[1], W. Horne[1], R. Baron[1]
*[1]Department of Oral Medicine, Infection and Immunity, Harvard School of Dental Medicine, Boston, United States*

**10:24 OC41 MOUSE GENETIC MODELS REVEAL MHC CLASS II TRANSACTIVATOR AS A NOVEL REGULATOR OF OSTEOCLASTOGENESIS AND BONE HOMEOSTASIS CO-OPTED FROM ADAPTIVE IMMUNITY**

E. Benasciutti*[1], E. Mariani[1], E. Perilli[2], E. Barras[3], R. Faccio[4], W. Reith[3], S. Cenci[1]
*[1]Bonetwork, Division of Genetics and Cell Biology, San Raffaele Scientific Institute, Milan, Italy, [2]Department of Surgical Pathology, Institute of Medical and Veterinary Science, Adelaide, Australia, [3]Department of Pathology and Immunology, University of Geneva Medical School, Geneva, Switzerland, [4]Department of Orthopaedic Surgery, Washington University School of Medicine, Saint Louis, United States*

**10:36 OC42 LOW DOSES OF VITAMIN D WITH CALCIUM REDUCE THE RISK OF FRACTURES: PATIENT LEVEL ANALYSIS OF 68,500 PATIENTS FROM SEVEN MAJOR VITAMIN D TRIALS IN THE US AND EUROPE**

B. Abrahamsen*[1], T. Masud[2], J. A. Robbins[3], F. Anderson[4], H. E. Meyer[5], C. Cooper[6], H. Smith[7], A. Z. LaCroix[8], A. Avenell[9], D. Torgerson[10], A. Johansen[11], R. Jackson[12], L. Rejnmark[13], J. Wactawski-Wende[14], K. Brixen[15], L. Mosekilde[16], R. Francis[17]
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**10:48 OC43 TYPE I COLLAGEN ISOMERIZATION (ALPHA/BETA CTX RATIO) AND THE RISK OF HIP AND NON-SPINE FRACTURE IN MEN: A PROSPECTIVE STUDY**

D. C. Bauer*[1], P. Garnero[2], S. Litwack[3], J. A. Cauley[4], K. Ensrud[5], R. Eastell[6], E. Orwoll[7]
*[1]Medicine, Epidemiology and Biostatistics, University of California, San Francisco, San Francisco, United States, [2]Molecular Diagnostics, Synarc, Lyon, France, [3]Research Institute, California Pacific Medical Center, San Francisco, [4]Epidemiology, University of Pittsburgh, Pittsburgh, [5]Medicine, University of Minnesota, Minneapolis, United States, [6]Bone Metabolism, University of Sheffield, Sheffield, United Kingdom, [7]Medicine, University of Oregon Health Sciences, Portland, United States*

**11:00 OC44 CONFORMITY BETWEEN 10-YEAR PROBABILITY OF ANY OSTEOPOROTIC FRACTURE ASSESSED BY FRAX AND NOMOGRAM BY NGUYEN AT AL**

W. Pluskiewicz*[1], P. Adamczyk[2], E. Franek[3], P. Leszczynski[4], E. Sewerynek[5], H. Wichrowska[3], L. Napiorkowska[3], T. Kostyk[4], M. Stuss[5], W. Stepien-Klos[5], B. Drozdzowska[2]
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**11:12 OC45 ARZOXIFENE IN POSTMENOPAUSAL WOMEN WITH NORMAL OR LOW BONE MASS**

M. Bolognese*[1], J. H. Krege[2], W. H. Utian[3], R. Feldman[4], S. Broy[5], D. L. Meats[2], J. Alam[2], M. Lakshmanan[2], M. Omizo[6]
*[1]Bethesda Health Research Center, Bethesda Health Research Center, Bethesda, [2]Lilly Research Laboratories, Lilly Research Laboratories, Indianapolis, [3]Rapid Medical Research, Rapid Medical Research, Beachwood, [4]Miami Research Associates, Miami Research Associates, Miami, [5]Illinois Bone and Joint Institute, Illinois Bone and Joint Institute, Morton Grove, [6]Oregon Osteoporosis Center, Oregon Osteoporosis Center, Portland, United States*

**11:24 OC46 TWENTY LOCI ASSOCIATED WITH BONE MINERAL DENSITY IDENTIFIED BY LARGE-SCALE META-ANALYSIS OF GENOME-WIDE ASSOCIATION DATASETS**

F. Rivadeneira*[1], U. Styrkarsdottir[2], K. Estrada[1], B. Halldorsson[2], Y. Hsu[3], J. B. Richards[4], M. C. Zillikens[1], F. Kavvoura[5], N. Amin[6], Y. Aulchenko[6], L. Cupples[7], P. Deloukas[8], S. Demissie[7], E. Grundberg[9], A. Hofman[6], A. Kong[2], D. Karasik[3], J. van Meurs[1], B. Oostra[10], T. Pastinen[9], H. A. P. Pols[1], G. Sigurdsson[11], N. Soranzo[8], G. Thorleifsson[2], U. Thorsteindottir[2], F. Williams[4], S. Wilson[4], Y. Zhou[7], S. Ralston[12], C. van Duijn[6], T. Spector[4], D. Kiel[3], K. Stefansson[2], J. Ioannidis[5], A. G. Uitterlinden[1], I. on behalf of the GEFOS Consortium[13]
*[1]Internal Medicine, Erasmus MC, Rotterdam, Netherlands, [2]deCODE Genetics, Reykjavik, Iceland, [3]Hebrew Senior Life, Harvard University, Boston, United States, [4]Twin Research, Kings College, London, United Kingdom, [5]Higiene & Epidemiology, Ioannina University, Ioannina, Greece, [6]Epidemiology, Erasmus MC, Rotterdam, Netherlands, [7]Public Health, Boston University, Boston, United States, [8]Sanger Institute, Cambridge, United Kingdom, [9]Genetics, McGill University, Montreal, Canada, [10]Genetics, Erasmus MC, Rotterdam, Netherlands, [11]Medicine, Iceland University, Reykjavik, Iceland, [12]Molecular & Clinical Medicine, Edinburgh University, Edinburgh, United Kingdom, [13]FP7-HEALTH, -F2-2008-201865, Rotterdam, Netherlands*