

Scientific Program

Thursday, September 10, 2009

PRE-CONGRESS WORKSHOP - OARSI-FDA-INITIATIVE

10:00 AM -12:00 PM

Outremont Room

Co-Chairs: Steven B. Abramson, MD
Marc C Hochberg, MD, MPH

Faculty: Robert Dworkin, PhD
Claim of Symptomatic Relief Working Group

Victor Goldberg, MD
Devices Working Group

David J. Hunter, MD, PhD
Assessment of Structural Change Working Group

Joanne Jordan, MD, MPH
Prevention Risk Reduction Working Group

Virginia Byers Kraus, MD, PhD
Biomarkers Working Group

Nancy Lane, MD
Defining Disease State Working Group

This workshop will provide an overview of the ongoing activities of the OARSI FDA OA Initiative in response to the 2007 FDA Federal Register notice seeking a critical appraisal of the science related to the design of clinical development programs for human drugs, biological products, and medical devices for the treatment and prevention of osteoarthritis. The workshop will include presentations by the Initiative's individual working groups who are addressing the key questions posed by the FDA in the original federal register notice.

PRE-CONGRESS WORKSHOP - OSTEOARTHRITIS INITIATIVE: ADVANCED TOPICS ON USE AND ANALYSIS OF THE OAI PUBLIC DATA

10:00 AM – 12:00 PM

Westmount Room

10:00 am - 10:30 am **RESEARCH QUESTIONS THAT CAN BE ADDRESSED USING
OAI DATA: POSSIBILITIES AND LIMITATIONS**

Michael C. Nevitt, PhD

10:30 am - 11:00 am **OAI ONLINE: ACCESS TO CLINICAL DATA, IMAGES AND
BIOSPECIMENS, AND DATA BROWSING TOOLS**

Susan M. Rubin, MPH

11:00 am - 11:30 am **OAI IMAGES AND IMAGE-DERIVED BIOMARKERS**

John Lynch, PhD

11:30 am - 12:00 noon **LONGITUDINAL AND HIERARCHICAL ANALYTIC STRATEGIES FOR OAI DATA**

Charles McCulloch, PhD

Thursday, September 10, 2009

2:00 PM-2:10 PM <i>Montreal Ballroom</i>	WELCOME FROM PRESIDENT
2:10 PM-3:30 PM	Plenary Session 1 – BIOMARKERS-ROLE OF BIOMARKERS IN DIAGNOSIS AND MONITORING OF OA <i>Sponsored by Novartis Pharma AG</i> Session Chairs: <i>Jean-Pierre Pelletier, MD</i> <i>Linda Sandell, PhD</i>
2:10 PM-2:30 PM	CLINICAL PERSPECTIVE ON THE ROLE OF BIOMARKERS AND THE DIAGNOSIS AND MONITORING OF OA <i>Virginia Byers Kraus, MD, PhD</i>
2:30 PM-2:50 PM	BASIC SCIENCE PERSPECTIVE ON THE ROLE OF BIOMARKERS IN THE DIAGNOSIS AND MONITORING OF OA <i>Dick Heinegard, MD, PhD</i>
2:50 PM-3:00 PM	Q & A
3:00 PM-3:15 PM	1 NOVEL BIOMARKERS OF KNEE OSTEOARTHRITIS IDENTIFIED USING METABOLIC PROFILING <i>G. Zhai¹, R. Wang-Sattler², D. Hart¹, T. Illig², T. D. Spector¹; ¹King's Coll. London, London, UNITED KINGDOM, ²Inst. of Epidemiology, Neuherberg, GERMANY</i>
3:15 PM-3:30 PM	2 IDENTIFICATION OF A NOVEL HTRA1-SUSCEPTIBLE CLEAVAGE SITE IN HUMAN AGGRECAN: EVIDENCE FOR THE INVOLVEMENT OF HTRA1 IN AGGRECAN PROTEOLYSIS IN VIVO <i>A. Chamberland, E. Wang, A. R. Jones, E. A. Morris, C. R. Flannery, Z. Yang; Wyeth Res., Cambridge, MA.</i>
3:30 PM-4:00 PM <i>Ballroom Foyer</i>	BREAK
4:00 PM-5:15 PM <i>Montreal Ballroom</i>	Plenary Session 2 – INTRINSIC VS. EXTRINSIC CARTILAGE REPAIR Session Chairs: <i>Chris Evans, PhD</i> <i>Richard Loeser, MD</i>
4:00 PM-4:30 PM	INTRINSIC POINT OF VIEW <i>Ernst Hunziker, MD</i>
4:30 PM-5:00 PM	EXTRINSIC POINT OF VIEW <i>Connie Chu, MD</i>
5:00 PM-5:15 PM	DISCUSSION

**2009 World Congress
on Osteoarthritis**



THURSDAY

5:15 PM-5:45 PM

BREAK

5:45 PM-7:00 PM

**OPENING CEREMONY / LIFETIME ACHIEVEMENT,
BASIC AND CLINICAL AWARD PRESENTATIONS**

Session Chairs:

Steven Abramson, MD

Francis Berenbaum MD, PhD

Recognition of Young Investigators-
Sponsored by Novartis Pharma AG

Basic Science Award Presentation
Amanda Fosang, PhD

Clinical Research Award Presentation
Leena Sharma, MD

LIFETIME ACHIEVEMENT AWARD

Alice Maroudas, PhD (in absentia)

Kenneth Brandt, MD

KEYNOTE LECTURE - AGING, INFLAMMATION AND OA

Martin Lotz, MD

7:00 PM-8:30 PM

OPENING RECEPTION WITH EXHIBITORS

Fontaine Exhibit Hall

Friday, September 11, 2009

7:15 AM -8:45 AM

Westmount Room

Satellite Breakfast Symposium

**SYNOVITIS: A POTENTIAL PREDICTOR OF
OSTEOARTHRITIS PROGRESSION**

Sponsored by Bioiberica

7:45 AM -8:45 AM

Fontaine G

Breakfast Workshop A

BIOMECHANICAL METHODS OF STUDYING JOINT FORCES

Thomas Brown, PhD

Fontaine H

Breakfast Workshop B

IMMUNOHISTOCHEMISTRY & CONFOCAL TECHNIQUES

Claire Brown, PhD

9:00 AM -10:30 AM

Montreal Ballroom

Plenary Session 3

HIGHEST RATED ABSTRACTS FROM YOUNG INVESTIGATORS

Sponsored by Novartis Pharma AG

Session Chairs:

Hiroshi Kawaguchi, MD, PhD

Linda Sandell, PhD

FRIDAY

- 9:00 AM-9:15 AM **3** **STRESS-DEPRIVATION UNCOUPLES METALLOPROTEINASE AND INHIBITOR EXPRESSION AND REDUCES MATERIAL PROPERTIES OF DISTINCT TENDON REGIONS**
J. L. Peterson¹, M. M. Smith¹, R. C. Appleyard², C. B. Little¹; ¹Raymond Purves Bone and Joint Res. Lab., The Kolling Inst. of Med. Res., Univ. of Sydney, Royal North Shore Hosp., St Leonards, AUSTRALIA, ²Murray Maxwell Biomechanics Lab., The Kolling Inst. of Med. Res., Univ. of Sydney, Royal North Shore Hosp., St Leonards, AUSTRALIA.
Young Investigator Award Winner
- 9:15 AM-9:30 AM **4** **TILUDRONATE IN AN EXPERIMENTAL DOG MODEL OF OSTEOARTHRITIS: BONE ANTI-RESORPTIVE ACTIVITY AND RELATED FUNCTIONAL IMPROVEMENT**
M. Moreau¹, P. Rialland¹, J-P. Pelletier², J. Martel-Pelletier², D. Lajeunesse², C. Boileau², J. Caron², G. Beauchamp¹, D. Gauvin¹, E. Troncy¹;
¹GREPAQ - Fac. vet. med. - Université de Montréal, St-Hyacinthe, QC, CANADA, ²Osteoarthritis Res. Unit - Notre-Dame Hosp., CR-CHUM - Université de Montréal, Montréal, QC, CANADA.
Young Investigator Award Winner
- 9:30 AM-9:45 AM **5** **USE OF A NOVEL *IN VIVO* KNEE JOINT LOADING MODEL TO DETERMINE THE INTERPLAY BETWEEN GENETIC AND MECHANICAL FACTORS IN THE INITIATION AND PROGRESSION OF MURINE OA.**
B. Poulet¹, R. W. Hamilton², P. D. Lee², S. J. Shefelbine², A. A. Pitsillides¹;
¹The Royal Vet. Coll., London, UNITED KINGDOM, ²Imperial Coll. London, London, UNITED KINGDOM.
Young Investigator Award Winner
- 9:45 AM-10:00 AM **6** **BIOMECHANICAL MODELS EXPLAIN INCREASED RISKS FOR KNEE OSTEOARTHRITIS DUE TO OBESITY AND LIMB ALIGNMENT**
S. Lancianese, A. Lerner; Univ. of Rochester, Rochester, NY.
Young Investigator Award Winner
- 10:00 AM-10:15 AM **7** **MICRORNA-27B (miR-27b) REGULATES THE EXPRESSION OF MMP-13 IN HUMAN OSTEOARTHRITIS CHONDROCYTES**
N. Akhtar, Z. Rasheed, A. N. Anbazhagan, S. Ramamurthy, F. R. Voss, T. M. Haqqi; Univ. of South Carolina, Columbia, SC.
Young Investigator Award Winner
- 10:15 AM-10:30 AM **8** **NF-KAPPA B FAMILY MEMBER RELA/P65, A TRANSACTIVATOR OF SOX9, IS ESSENTIAL FOR CHONDROGENIC DIFFERENTIATION AND SKELETAL GROWTH**
S. Itoh, T. Saito, M. Ushita, T. Ikeda, F. Yano, N. Ogata, U-i. Chung, K. Nakamura, H. Kawaguchi; Sensory & Motor System Med., Univ. of Tokyo, Tokyo, JAPAN.
Young Investigator Award Winner
- 10:30 AM-11:00 AM **OARSI BUSINESS MEETING**
Montreal Ballroom
- 11:00 AM-11:30 AM **BREAK**
Fontaine Exhibit Hall

11:30 AM-12:30 PM
Outremont Room

Concurrent Session 1

BONE & OA

Session Chairs:

David Eyre, PhD

Dick Heinegard, MD, PhD

11:30 AM-12:00 PM

THE ROLE OF BONE IN THE PROGRESSION AND DEVELOPMENT OF OA

Daniel Lajeunesse, PhD

12:00 PM-12:15 PM

9 EARLY SUBCHONDRAL PLATE THINNING IN DIFFERENT EXPERIMENTAL CANINE MODELS OF OA IS INTRINSIC TO CARTILAGE DEGENERATION WHILE TRABECULAR CHANGES ARE RELATED TO UNLOADING

F. Intema¹, S. C. Mastbergen¹, J. W. Bijlsma¹, H. A. Hazewinkel², H. H. Weinans³, F. P. Lafeber¹; ¹Rheumatology & Clin. Immunology UMC Utrecht, Utrecht, NETHERLANDS, ²Faculty of Vet. Med., Univ. of Utrecht, Utrecht, NETHERLANDS, ³Orthopaedics, ErasmusMC, Rotterdam, NETHERLANDS.

12:15 PM-12:30 PM

10 THE UNDERLYING MOLECULAR MECHANISMS OF PRIMARY HIP OSTEOARTHRITIS AND ITS INVERSE RELATIONSHIP WITH FRACTURE COHORTS

D. D. Kumarasinghe^{1,2}, B. Hopwood^{2,3}, G. J. Atkins^{3,4}, N. L. Fazzalari^{1,2}; ¹Discipline of Pathology, Univ. of Adelaide, Adelaide, AUSTRALIA, ²Bone & Joint Res. Lab, SA Pathology, Adelaide, AUSTRALIA, ³Hanson Inst., SA Pathology, Adelaide, AUSTRALIA, ⁴Discipline of Orthopaedics & Trauma, Univ. of Adelaide, Adelaide, AUSTRALIA.

11:30 AM-12:30 PM
Westmount Room

Concurrent Session 2

EPIDEMIOLOGY AND OA

Session Chairs:

Marc Hochberg, MD, MPH

George Nuki, MB, FRCP

11:30 AM-11:45 PM

THE ROLE OF EPIDEMIOLOGY IN UNDERSTANDING OA

Jeffrey Katz, MD

11:45 AM-12:00 PM

11 TWO-YEAR INCIDENCE AND PREDICTORS OF FUTURE KNEE ARTHROPLASTY IN PERSONS WITH SYMPTOMATIC KNEE OSTEOARTHRITIS: PRELIMINARY ANALYSIS OF LONGITUDINAL DATA FROM THE OSTEOARTHRITIS INITIATIVE

D. L. Riddle¹, W. A. Jiranek¹, X. Kong²; ¹Virginia Commonwealth Univ., Richmond, VA, ²Johns Hopkins Univ., Baltimore, MD.

12:00 PM-12:15 PM

12 RISK FOR SYMPTOMATIC KNEE OSTEOARTHRITIS DOES NOT VARY BY KNEE EXTENSOR STRENGTH AND KNEE JOINT POSITION SENSE

N. A. Segal¹, N. A. Glass¹, D. Felson², M. Hurley³, M. Yang², M. Nevitt⁴, C. E. Lewis⁵, J. C. Torner¹; ¹Univ. of Iowa, Iowa City, IA, ²Boston Univ., Boston, MA, ³King's Coll. London, London, UNITED KINGDOM, ⁴Univ. of California at San Francisco, San Francisco, CA, ⁵Univ. of Alabama at Birmingham, Birmingham, AL.

12:15 PM-12:30 PM

13 IMPAIRMENT OF FUNCTION IS THE MAJOR DETERMINANT OF REDUCED HEALTH-RELATED QUALITY OF LIFE IN HAND OSTEOARTHRITIS PATIENTS IN SECONDARY CARE.

W. Y. Kwok, T. P. Vliet Vlieland, M. Kloppenburg, T. W. Huizinga; Leiden Univ. Med. Ctr., Leiden, NETHERLANDS.

12:30 PM-2:00 PM
Westmount Room

Satellite Lunch Symposium

SYMPTOMATIC TREATMENT AND STRUCTURE MODIFICATION IN OA: NOW THE EVIDENCE

Sponsored by IBSA

2:00 PM-3:30 PM
Ouremont Room

Concurrent Session 3
INNATE IMMUNITY & OA

Session Chairs:
Mary B. Goldring, PhD
Hyun Ah Kim, MD, PhD

2:00 PM-2:30 PM

INNATE IMMUNE SYSTEM ACTIVATION IN OA: IS OA A CHRONIC WOUND?

Carla Scanzello, MD, PhD

2:30 PM-2:45 PM

14 THE ASSOCIATIONS BETWEEN LEPTIN, INTERLEUKIN 6 AND HIP RADIOGRAPHIC OSTEOARTHRITIS IN OLDER PEOPLE

C. Ding^{1,2}, O. Stannus¹, F. Cicuttini², D. Dore¹, G. Jones¹;
¹Univ. of Tasmania, Hobart, AUSTRALIA, ²Monash Univ., Melbourne, AUSTRALIA.

2:45 PM-3:00 PM

15 COMPARISON OF THE EXPRESSION PROFILES OF SYNOVIAL TISSUE INFLAMMATION BETWEEN END-STAGE AND PROGRESSIVE KNEE OSTEOARTHRITIS

N. Liang¹, **H. Kaneko¹**, M. Ishijima¹, M. Kubota¹, I. Futami¹, L. Zu¹, T. Kawasaki¹, Y. Takazawa¹, H. Ikeda¹, H. Kurihara², E. Arikawa-Hirasawa³, H. Kurosawa¹;
¹Dept of Orthopaedics, Juntendo Univ., Tokyo, JAPAN, ²Dept of Anatomy and Life Structure, Juntendo Univ., Tokyo, JAPAN, ³Res. Inst. for Diseases of Old Ages, Juntendo Graduate Sch. of Med., Tokyo, JAPAN.

3:00 PM-3:15 PM

16 IL-1 SIGNALS BEYOND THE CANONICAL PATHWAY IN MURINE OA

S. S. Glasson, A. R. Jones, M. A. Rivera-Bermudez, T. Blanchet, E. A. Morris;
Wyeth, Cambridge, MA.

3:15 PM-3:30 PM

17 INHIBITORY INTERACTIONS BETWEEN HMGB1 AND HEME OXYGENASE-1 PATHWAYS IN OSTEOARTHRITIC SYNOVIOCYTES.

I. García-Arnandis¹, I. Guillén^{1,2}, M. A. Castejón³, M. Alcaraz¹;
¹Univ. of Valencia, Dept. Pharmacology, Burjasot, SPAIN, ²Cardenal Herrera-CEU Univ., Moncada, SPAIN, ³La Ribera Univ. Hosp., Alzira, SPAIN.

2:00 PM-3:30 PM
Westmount Room

Concurrent Session 4
MEASUREMENT OF OUTCOMES IN OA THERAPY

Sponsored by Expanscience Laboratoires
Session Chairs:
Roy Altman, MD
Jean-Yves Reginster, MD, PhD

2:00 PM-2:30 PM

NEW APPROACHES TO MEASUREMENT OF OUTCOMES TO ASSESS EFFICACY OF OA TREATMENT

Maxime Dougados, MD

2:30 PM-2:45 PM

18 RELATIONSHIP OF WEIGHT CHANGE WITH CHANGE IN KNEE PAIN AND FUNCTION IN PERSONS WITH SYMPTOMATIC RADIOGRAPHIC KNEE OSTEOARTHRITIS: ONE-YEAR FOLLOW-UP DATA FROM THE OSTEOARTHRITIS INITIATIVE

M. C. Hochberg¹, K. Favors¹, D. Bujak¹, T. Niculescu¹, S. Bartlett², J. Bathon², J. Sorkin¹;
¹Univ. of Maryland, Baltimore, MD, ²The Johns Hopkins Univ., Baltimore, MD.

2:45 PM-3:00 PM

19 THE EFFECT OF LONG-TERM VIGOROUS PHYSICAL ACTIVITY ON KNEE CARTILAGE AMONG ADULTS WITHOUT CLINICAL KNEE DISEASE

A. J. Teichtahl¹, **A. E. Wluka¹**, Y. Wang¹, A. Forbes¹, M. L. Davies-Tuck¹, D. R. English^{2,3}, G. G. Giles³, F. M. Cicuttini¹;
¹Dept. of Epidemiology and Preventive Med., Sch. of Publ. Hlth. and Preventive Med., Monash Univ., Melbourne, AUSTRALIA, ²Ctr. for Molecular, Environmental, Genetic and Analytic Epidemiology, Sch. of Population Hlth., Univ. of Melbourne, Melbourne, AUSTRALIA, ³Cancer Epidemiology Ctr., The Cancer Council Victoria, Melbourne, AUSTRALIA.

- 3:00 PM-3:15 PM **20** **DETERMINANTS OF LONG-TERM RADIOGRAPHIC AND CLINICAL PROGRESSION OF HAND OSTEOARTHRITIS**
J. Bijsterbosch, I. Watt, I. Meulenbelt, F. R. Rosendaal, T. W. Huizinga, M. Kloppenburg; Leiden Univ. Med. Ctr., Leiden, NETHERLANDS.
- 3:15 PM-3:30 PM **21** **PAIN IMPROVEMENTS FOLLOWING TOTAL JOINT REPLACEMENT: WHAT YOU MEASURE MATTERS**
A. M. Davis¹, L. S. Lohmander², R. Wong¹, V. Venkataramanan¹, G. A. Hawker³; ¹Toronto Western Res. Inst., Toronto, ON, CANADA, ²Univ. Hosp. in Lund, Lund, SWEDEN, ³Women's Coll. Hosp., Toronto, ON, CANADA.
- 3:30 PM-5:00 PM
Fontaine Exhibit Hall
- Poster Session 1**
Sponsored by Astellas
Including Moderated Poster Session - Presentations by Young Investigators/Students
Session Chair: Johanne Martel-Pelletier, PhD
- 4:00 PM-4:30 PM **MODERATED POSTERS:**
Posters 57 - 62
- 5:00 PM-6:30 PM
Outremont Room
- Concurrent Session 5**
GENETICS/EPIGENETICS AND CARTILAGE DEGENERATION
Session Chairs:
Francis Berenbaum, MD, PhD
Hassan Fahmi, PhD
- 5:00 PM-5:30 PM **ADVANCES IN UNDERSTANDING THE ROLE OF GENETICS IN OA**
Ele Zeggini, PhD
- 5:30 PM-6:00 PM **EPIGENETICS AND CARTILAGE DEGENERATION**
Helmtrud Roach, PhD
- 6:00 PM-6:15 PM **22** **FOLLOW-UP ANALYSIS OF THE ROLE OF GENETIC VARIATION IN ADAMTS14 IN OSTEOARTHRITIS SUSCEPTIBILITY**
A. Gonzalez¹, C. Rodriguez-Fontela¹, M. Calaza¹, A. Carr², M. Doherty³, J. J. Gomez-Reino^{1,4}, J. Loughlin⁵, T. Spector⁶, A. Tsezou⁷, A. M. Valdes⁶;
¹Hosp. Clinico Univ.rio de Santiago, Santiago de Compostela, SPAIN, ²Nuffield Orthopaedic Ctr., Oxford, UNITED KINGDOM, ³Univ. of Nottingham, Nottingham, UNITED KINGDOM, ⁴Univ. of Santiago de Compostela, Santiago de Compostela, SPAIN, ⁵Newcastle Univ., Newcastle upon Tyne, UNITED KINGDOM, ⁶St. Thomas Hosp. Campus, Kings Coll., London Sch. of Med., London, UNITED KINGDOM, ⁷Univ. of Thessaly, Larissa, GREECE.
- 6:15 PM-6:30 PM **23** **META-ANALYSIS OF GENOME-WIDE ASSOCIATION STUDIES OF OSTEOARTHRITIS.**
E. Evangelou¹, **A. M. Valdes**², U. Styrkársdóttir³, H. Kerkhof⁴, I. Jonsdottir³, A. Uitterlinden⁴, Y. Zhu⁵, A. Cupples⁶, J. P. Ioannidis¹, K. Stefansson³, D. Felson⁵, J. Van Meurs⁴, T. D. Spector²;
¹Dept. of Hygiene and Epidemiology, Univ. of Ioannina, Ioannina, GREECE, ²King's Coll. London, London, UNITED KINGDOM, ³deCODE genetics, Reykjavik, ICELAND, ⁴Dept. of Epidemiology, Erasmus Med. Ctr., Rotterdam, NETHERLANDS, ⁵Boston Univ. Sch. of Med., Boston, MA, ⁶Boston Univ. Sch. of Publ. Hlth., Boston, MA.

5:00 PM-6:30 PM
Westmount Room

Concurrent Session 6
MUSCLE STRENGTH, PROPRIOCEPTION & OA
Session Chairs:
Kenneth Brandt, MD
Ewa Roos, MD

5:00 PM-5:30 PM

ADVANCES IN UNDERSTANDING THE ROLE OF MUSCLE STRENGTH AND PROPRIOCEPTION IN THE DEVELOPMENT AND PROGRESSION OF OA
Neil Segal, MD

5:30 PM-5:45 PM

24 EXERCISE OR NOT TO EXERCISE: A GENOME WIDE ANALYSIS OF EFFECTS OF EXERCISE ON EARLY AND LATE OA
P. Perera, J. Nam, J. Friezner, **S. Agarwal**;
The Ohio State Univ., Columbus, OH.

5:45 PM-6:00 PM

25 GAMMA-LOOP DYSFUNCTION CONTRIBUTES TO QUADRICEPS INHIBITION IN PATIENTS WITH KNEE JOINT OSTEOARTHRITIS.
D. Rice, **P. J. McNair**, G. Lewis;
Auckland Univ. of Technology, Auckland, NEW ZEALAND.

6:00 PM-6:15 PM

26 PAIN, FUNCTION AND MUSCLE STRENGTH IN MENISCECTOMIZED PATIENTS AT HIGH RISK OF OA COMPARED TO AGE- AND GENDER MATCHED CONTROLS.
J. B. Thorlund, P. Aagaard, E. M. Roos;
Inst. of Sports Sci. and Clinical Biomechanics, Univ. of Southern Denmark, Odense M, DENMARK.

6:15 PM-6:30 PM

27 KNEE STRENGTH PREDICTS LOSS OF FUNCTION AND DECLINE IN PHYSICAL ACTIVITY IN PARTICIPANTS WITH OSTEOARTHRITIS: A 2-YR FOLLOW-UP OF THE OAI STUDY
F. Haq, M. Gurcan, K. Powell, R. D. Jackson, J. Prescott, M. Swanson, T. M. Best;
Ohio State Univ. Med. Ctr., Columbus, OH.

Saturday, September 12, 2009

7:45 AM -8:45 AM
Fontaine G

Breakfast Workshop C
DESIGNING AN OA CLINICAL TRIAL
Jean-Pierre Pelletier, MD

7:45 AM -8:45 AM
Fontaine H

Breakfast Workshop D
HOW TO USE MESENCHYMAL STEM CELLS IN OA RESEARCH
Christian Jorgensen, MD

9:00 AM-10:30 AM
Outremont Room

Concurrent Session 7
CLINICAL IMPLICATIONS OF MODERN IMAGING TECHNOLOGIES
Session Chairs:
Ingrid Moller, MD
Jean-Pierre Raynauld, MD

9:00 AM-9:30 AM

STRATEGIES TO USE MODERN IMAGING TECHNOLOGIES TO EVALUATE PATIENTS WITH OA
Flavia Cicuttini, MD, MBBS

FRIDAY

SATURDAY

- 9:30 AM-9:45 AM 28 **OPTICAL COHERENCE TOMOGRAPHY (OCT) AND QUANTITATIVE MRI SHOW EARLY SUBSURFACE MATRIX DEGENERATION IN HUMAN ARTICULAR CARTILAGE**
D. M. Bear, A. Williams, Y. Qian, C. R. Chu;
Univ. of Pittsburgh, Pittsburgh, PA.
Young Investigator Award Winner
- 9:45 AM-10:00 AM 29 **TEMPORAL STRUCTURAL CHANGES IN HIP OA DETECTED BY SHAPE AND APPEARANCE MODELLING OF DXA IMAGES: A ONE-YEAR PROSPECTIVE LONGITUDINAL STUDY**
K. Yoshida¹, J. S. Gregory¹, R. J. Barr¹, S. Alesci², R. M. Aspden¹, D. M. Reid¹;
¹Univ. of Aberdeen, Aberdeen, UNITED KINGDOM, ²Discovery Translational Med., Wyeth Res., Collegeville, PA.
- 10:00 AM-10:15 AM 30 **RADIAL MRI AND 3D dGEMRIC IN DEVELOPMENTAL DYSPLASIA OF THE HIP AND IN FEMOROACETABULAR IMPINGEMENT**
S. E. Domayer¹, I. Kress¹, J. Chan¹, T. C. Mamisch², Y-J. Kim¹;
¹Children's Hosp. Boston, Boston, MA, ²Dept. of Orthopedics, Bern, SWITZERLAND.
- 10:15 AM-10:30 AM 31 **RELATIONSHIP BETWEEN MENISCUS VOLUME AND CARTILAGE MORPHOLOGY IN MR IMAGES OF OSTEOARTHRITIS PATIENTS**
J. W. Prescott, M. S. Swanson, K. Hoang, M. Pennell, F. Haq, T. M. Best, R. D. Jackson, M. N. Gurcan;
Ohio State Univ., Columbus, OH.
- 9:00 AM-10:30 AM **Concurrent Session 8**
Westmount Room
AGING OF CELLS & MATRIX
Session Chairs:
Rita Kandel, MD
Robert Terkeltaub, MD
- 9:00 AM-9:30 AM **ADVANCES IN THE UNDERSTANDING OF THE ROLE IN AGING IN THE DEVELOPMENT AND PROGRESSION OF OA**
James Martin, PhD
- 9:30 AM-9:45 AM 32 **A REDUCTION IN SIRT1 LEVELS IN OA ARTICULAR CARTILAGE IS ASSOCIATED WITH AN INCREASE IN PTP1B, MMP13 AND CHONDROCYTE APOPTOSIS**
O. Gabay, V. Gagarina, E. Lee, M. Dvir-Ginzberg, J. Onodera, D. Hall, Sr.;
NIH, Bethesda, MD.
Young Investigator Award Winner
- 9:45 AM-10:00 AM 33 **OXIDIZED LDL INDUCES STRESS-INDUCED PREMATURE SENESCENCE IN CULTURED BOVINE ARTICULAR CHONDROCYTES**
M. Akagi, S. Zushi, H. Kishimoto, T. Teramura, S. Nishimura, C. Hamanishi;
Kinki Univ. Sch. of Med., Osaka-Sayama City, JAPAN.
- 10:00 AM- 10:15 AM 34 **REDUCTION IN ARTICULAR CARTILAGE LESIONS IN OLDER ADULT MICE OVEREXPRESSING CATALASE TARGETED TO MITOCHONDRIA**
R. F. Loeser¹, M. A. McNulty², P. M. Treuting³, C. S. Carlson²;
¹Wake Forest Univ. Sch. of Med., Winston Salem, NC, ²Univ. of Minnesota Coll. of Vet. Sci., St. Paul, MN, ³Univ. of Washington, Seattle, WA.
- 10:15 AM-10:30 AM 35 **EFFECTS OF INORGANIC PYROPHOSPHATE ON CHONDROCYTE RESPONSE WHEN ENCAPSULATED IN 3D SYNTHETIC HYDROGELS**
N. Bishop¹, M. Kissler¹, M. Husa², R. Terkeltaub², S. Bryant¹;
¹Univ. of Colorado, Boulder, CO, ²VA Med. Ctr. San Diego, San Diego, CA.

10:30 AM-11:00 AM <i>Fontaine Exhibit Hall</i>	BREAK
11:00 AM -12:30 PM <i>Outremont Room</i>	Concurrent Session 9 PAIN TARGETS IN OA <i>Session Chairs:</i> <i>Gillian Hawker MD, MSc</i> <i>Eric Troncy, DV, MSc, PhD, Dun</i>
11:00 AM-11:30 AM	NEW STRATEGIES FOR TREATING PAIN IN PATIENTS WITH OA <i>Richard Leff, MD</i>
11:30 AM-11:45 PM	36 DEVELOPMENT OF RADIOLOGICAL OSTEOARTHRITIS PATHOLOGY AT FOLLOW-UP IN PEOPLE WITH JOINT PAIN AT BASELINE. B. M. de Klerk, D. Schiphof, B. W. Koes, S. M. Bierma-Zeinstra; Erasmus Univ. Med. Ctr., Rotterdam, NETHERLANDS.
11:45 AM-12:00 PM	37 A TOOL THAT IDENTIFIES NEUROPATHIC PAIN SYMPTOMS IN A COMMUNITY KNEE OA COHORT J. Hochman^{1,2}, D. Sutton¹, M. French¹, L. Gagliese³, A. Davis⁴, G. Hawker^{1,2}; ¹ Women's Coll. Hosp., Toronto, ON, CANADA, ² Univ. of Toronto, Toronto, ON, CANADA, ³ Univ. Hlth.Network, Toronto, ON, CANADA, ⁴ Toronto Western Res. Inst., Toronto, ON, CANADA.
12:00 PM-12:15 PM	38 PERIPHERAL EFFECTS OF ENDOGENOUS LIGANDS IN THE RAT INFLAMED JOINT MODEL L. Mécs, K. Tóth, K. Wellinger, G. Tuboly, G. Kékesi, G. Horváth; Univ. of Szeged, Szeged, HUNGARY.
12:15 AM-12:30 PM	39 VALIDITY OF PAIN ASSESSMENT METHODS IN THE EXPERIMENTAL DOG POND-NUKI MODEL P. Rialland¹, M. Moreau¹, J-P. Pelletier², J. Martel-Pelletier², D. Lajeunesse², C. Boileau², J. Caron², G. Beauchamp¹, D. Gauvin¹, E. Troncy¹; ¹ GREPAQ - Fac. vet. med. - Université de Montréal, St-Hyacinthe, QC, CANADA, ² Osteoarthritis Res. Unit - Notre-Dame Hosp., CR-CHUM - Université de Montréal, Montréal, QC, CANADA.
11:00 AM-12:30 PM <i>Westmount Room</i>	Concurrent Session 10 DEBATE: DIFFERENT OA PHENOTYPES <i>Session Chairs:</i> <i>Virginia Byers Kraus, MD, PhD</i> <i>Farshid Guilak, PhD</i>
11:00 AM-11:25 PM	BASIC SCIENCE STUDIES OF OA PHENOTYPES: THEIR ROLE IN UNDERSTANDING THE DEVELOPMENT AND PROGRESSION OF OA <i>Steven Abramson, MD</i>
11:25 AM-11:50 PM	DISTINCT CLINICAL PHENOTYPES OF OA <i>Wolfgang Ruether, MD</i>
11:50 AM-12:15 PM	IDENTIFYING DIFFERENT OA PHENOTYPES THROUGH EPIDEMIOLOGIC RESEARCH <i>David Felson, MD, MPH</i>
12:15 PM-12:30 PM	15 minute DISCUSSION

12:30 PM-1:30PM
Fontaine G

EDUCATIONAL WORKSHOP FOR YOUNG INVESTIGATORS
Lunch Provided

HOW TO PRESENT A TALK: GUIDANCE FOR THE NEW INVESTIGATOR
Linda Sandell, PhD

12:45 PM-2:15 PM
Westmount Room

Satellite Lunch Symposium
NEW PARADIGMS IN THE TREATMENT OF OSTEOARTHRITIS PATIENTS WITH HYPERTENSION
Sponsored by NicOx

2:15 PM-3:30 PM
Outremont Room

Concurrent Session 11
SURGICAL METHODS OF STIMULATING RESTORATION OF JOINT SURFACES: OSTEOTOMIES AND JOINT DISTRACTION
Session Chairs:
Kim Bennell, PhD, PT
Joseph Buckwalter, MD

2:15 PM-2:30 PM

SURGICAL METHODS OF RESTORING AN ARTICULAR SURFACE IN OSTEOARTHRITIC JOINTS
Bert Mandelbaum, MD

2:30 PM-2:45 PM

USE OF ANIMAL MODELS TO DEVELOP SURGICAL METHODS OF STIMULATING RESTORATION OF JOINT SURFACES IN OSTEOARTHRITIC JOINTS
Floris Lafeber, PhD

2:45 PM-3:00 PM

40 INJECTION OF ALLOGENEIC IMMUNOSELECTED STRO-3+ MESENCHYMAL PRECURSOR STEM CELLS INTO LUMBAR INTERVERTEBRAL DISCS ATTENUATES DEGENERATION AND PROMOTES THE RESTORATION OF THE DISC EXTRACELLULAR MATRIX. AN EXPERIMENTAL STUDY IN AN OVINE MODEL OF DISC DEGENERATION.
P. Ghosh¹, S. Itescu¹, R. Moore², B. Vernon-Roberts², T. Goldschlager³, A. Zannettino², S. Gronthos², C. Little⁴, C. Shu⁴, J. Melrose⁴;
¹Mesoblast Ltd, Melbourne, AUSTRALIA, ²Inst. of Vet. and Med. Sci., Adelaide, AUSTRALIA, ³Monash Univ., Melbourne, AUSTRALIA, ⁴Univ. of Sydney, Sydney, AUSTRALIA.

3:00 PM-3:15 PM

41 CARTILAGE RESTORATION AFTER HIGH TIBIAL OSTEOTOMY
G. Spahn¹, G. O. Hofmann²;
¹Ctr. of Traumatology and Orthopaedic Surgery, Eisenach, GERMANY, ²Ctr. of Trauma Univ. of Jena and Trauma Ctr. Halle, Jena and Halle, GERMANY.

3:15 PM-3:30 PM

42 SUBCHONDRAL BONE DENSITY CHANGES MAY PARTLY EXPLAIN THE CLINICAL BENEFIT OF JOINT DISTRACTION IN TREATMENT OF ADVANCED ANKLE OA
F. Intema¹, T. P. Thomas², D. D. Anderson², J. M. Elkins², F. P. Lafeber¹, T. D. Brown², A. Amendola², C. L. Saltzman³;
¹Rheumatology & Clin. Immunology, UMC Utrecht, Utrecht, NETHERLANDS, ²The Univ. of Iowa, Iowa City, IA, ³The Univ. of Utah, Salt Lake City, UT.

2:15 PM-3:30 PM
Westmount Room

Concurrent Session 12
INFLAMMATION AND OA: THE ROLE OF ADIPOKINES
Session Chairs:
Thomas Aigner, MD, DSC
Johanne Martel-Pelletier, PhD

2:15 PM-2:45 PM

UNDERSTANDING THE ROLE OF INFLAMMATION IN OA
Francis Berenbaum, MD, PhD

SATURDAY

- 2:45 PM-3:00 PM **43** **IN VIVO EVIDENCE OF THE IMPLICATION OF PROTEINASE-ACTIVATED RECEPTOR (PAR)-2 IN CARTILAGE DEGRADATION IN A MOUSE MODEL OF OSTEOARTHRITIS**
N. Amiable¹, J. Martel-Pelletier¹, J-P. Pelletier¹, B. Lussier², F. Paré¹, S. Tremblay¹, **C. Boileau**¹;
¹Osteoarthritis Res. Unit, Notre-Dame Hosp., Univ. of Montreal Hosp. Res. Ctr. (CRCHUM), Montreal, QC, CANADA, ²Dept. of Vet. Med., Clinical Sci., Univ. of Montreal, St-Hyacinthe, QC, CANADA.
- 3:00 PM-3:15 PM **44** **EFFICACY OF CHONDROITIN SULPHATE ON SYNOVITIS IN PATIENTS WITH KNEE OSTEOARTHRITIS: AN ULTRASOUND STUDY**
I. Möller;
Inst. Poal de Reumatología, Barcelona, SPAIN.
- 3:15 PM-3:30 PM **45** **SERUM LEVELS OF INFLAMMATORY MARKERS, KNEE RADIOGRAPHIC OSTEOARTHRITIS, AND KNEE CARTILAGE LOSS IN OLDER ADULTS**
C. Ding^{1,2}, F. Cicuttini³, V. Parameswaran⁴, O. Stannus¹, J. Burgess¹, G. Jones¹;
¹Univ. of Tasmania, Hobart, AUSTRALIA, ²Monash Univ., Melbourne, AUSTRALIA, ³Monosh Univ., Melbourne, AUSTRALIA, ⁴Royal Hobart Hosp., Hobart, AUSTRALIA.
- 3:30 PM-5:00 PM
Fontaine Exhibit Hall **Poster Session 2**
Including Moderated Poster Session - Presentations by Young Investigators/Students
Session Chair: Yves Henrotin, PhD
- 4:00 PM-4:30 PM **MODERATED POSTERS:**
Posters 63 - 68
- 5:00 PM-6:00 PM
Outremont Room **Concurrent Session 13**
BIO PSYCHOSOCIAL ASPECTS IN OA
Session Chairs:
Paul Dieppe, MD
Gillian Hawker, MD, MSC
- 5:00 PM-5:20 PM **COPING WITH ARTHRITIS PAIN: CURRENT TRENDS AND FUTURE DIRECTIONS**
Francis Keefe, PhD
- 5:20 PM-5:40 PM **SLEEP AND PAIN INTERACTION: A CIRCULAR PROBLEM?**
Gilles Lavigne, PhD, DMD
- 5:45 PM-6:00 PM **46** **RACIAL DIFFERENCES IN OSTEOARTHRITIS PAIN AND FUNCTION: POTENTIAL EXPLANATORY FACTORS**
K. D. Allen^{1,2}, E. Z. Oddone^{1,2}, C. J. Coffman^{1,2}, F. J. Keefe², J. H. Lindquist¹, H. B. Bosworth^{1,2};
¹Durham VA Med. Ctr., Durham, NC, ²Duke Univ. Med. Ctr., Durham, NC.
- 5:00 PM-6:00 PM
Westmount Room **Concurrent Session 14**
CELL MATRIX INTERACTIONS
Session Chairs:
Frank Beier, PhD
Amanda Fosang, PhD
- 5:00 PM-5:30 PM **UPDATE ON MATRIX DEGRADATION: ROLE OF MATRIX DEGRADATION IN OA**
Chris B. Little, PhD, BVMS

- 5:30 PM–5:45 PM **47** **DIFFERENTIAL REGULATION OF THE INSULIN-LIKE GROWTH FACTOR BINDING PROTEIN-5 AND MATRIX METALLOPROTEASE-13 GENES BY THE MICRORNAS MIR-140 AND MIR-27A IN HUMAN OSTEOARTHRITIC CHONDROCYTES**
G. Tardif¹, D. Hum¹, J-P. Pelletier¹, N. Duval², **J. Martel-Pelletier¹**;
¹Osteoarthritis Res. Unit, Notre-Dame Hosp., Univ. of Montreal Hosp. Res. Ctr. (CRCHUM), Montreal, QC, CANADA, ²Duval Clinique Orthopédique, Le Pavillon des Charmilles, Laval, QC, CANADA.
- 5:45 PM–6:00 PM **48** **EVIDENCE FOR A ROLE OF DICKOPPF-3 IN THE PATHOGENESIS OF OSTEOARTHRITIS**
S. Snelling¹, R. K. Davidson², T. E. Swinger², I. Clark²;
¹Univ. of Oxford, Oxford, UNITED KINGDOM, ²Univ. of East Anglia, Norwich, UNITED KINGDOM.
- 7:00 PM-10:00 PM **CONGRESS DINNER**

Sunday , September 13, 2009

- 7:45 AM-8:45 AM
Fontaine G **Breakfast Workshop E**
CLINICAL APPLICATIONS OF GAIT ANALYSIS
Monica Maly, PT, PhD
- 7:45 AM-8:45 AM
Fontaine H **Breakfast Workshop F**
ANIMAL HISTOPATHOLOGY
DOG – Keiichi Kuroki, DVM, PhD
RAT - Nicole Gerwin, PhD
- 9:00 AM -10:30 AM
Outremont Room **Concurrent Session 15**
POST-TRAUMATIC OA
Session Chairs:
Alan Grodzinsky, ScD
Stefan Lohmander, MD, PhD
- 9:00 AM-9:30 AM **NEW UNDERSTANDING OF THE ROLE OF JOINT INJURY IN THE DEVELOPMENT OF OA**
Martin Lotz, MD
- 9:30 AM-9:45 AM **49** **JOINT INJURY LEADS TO SIGNIFICANTLY INCREASED AGGREGANASE ACTIVITY IN HUMANS AND PRECLINICAL ANIMAL MODELS**
P. S. Chockalingam¹, W. Sun¹, M. Rivera-Bermudez¹, S. Glasson¹, J. Lee¹, S. Larsson², L. S. Lohmander², K. E. Georgiadis¹, E. A. Morris¹;
¹Wyeth Res., Cambridge, MA, ²Dept. of Orthopedics, Clinical Sci. Lund, Lund University, SWEDEN.
- 9:45 AM-10:00 AM **50** **COMP IN POSTTRAUMATIC OA**
E. Lindhorst¹, R. Raiss², A. Theisen², F. Hentschel², T. Aigner³, L. Wachsmuth⁴;
¹Univ. of Bochum, Univ. of Marburg, Univ. of Frankfurt/Main, Bochum, GERMANY, ²Univ. of Frankfurt/Main, Frankfurt/Main, GERMANY, ³Univ. of Leipzig, Univ. of Erlangen, Leipzig, GERMANY, ⁴Univ. of Erlangen, Erlangen, GERMANY.
- 10:00 AM-10:15 AM **51** **PREVALENCE AND INCIDENCE OF POST-TRAUMATIC OSTEOARTHRITIS IN THE POPULATION OF THE PROVINCE OF QUEBEC**
J. Vaillancourt, J. Sampalis;
McGill Univ. and JSS Med. Res., Montreal, QC, CANADA.

10:15 AM-10:30 AM	52	OPTICAL COHERENCE TOMOGRAPHY (OCT) SIGNAL CHANGES ARE POTENTIAL BIOMARKERS OF ACUTE CARTILAGE INJURY D. M. Bear , M. Szczodry, S. Kramer, P. Smolinski, C. R. Chu; Univ. of Pittsburgh, Pittsburgh, PA.	
9:00 AM-10:30 AM <i>Westmount Room</i>		Concurrent Session 16 TARGETING SIGNALING PATHWAYS <i>Session Chairs:</i> <i>Wim van den Berg, PhD</i>	
9:00 AM-9:30 AM		TARGETING SIGNALING PATHWAYS IN DEVELOPING NEW TREATMENTS FOR OA <i>Frank Beier, PhD</i>	
9:30 AM-9:45 AM	53	REACTIVE OXYGEN SPECIES INHIBIT IGF-I INDUCTION OF CHONDROCYTE PROTEOGLYCAN SYNTHESIS THROUGH DIFFERENTIAL REGULATION OF PI-3 KINASE-AKT AND MEK-ERK MAPK SIGNALING PATHWAYS R. F. Loeser , W. Yin; Wake Forest Univ. Sch. of Med., Winston Salem, NC.	
9:45 AM-10:00 AM	54	EXTRACELLULAR SULFATASES SUPPORT CARTILAGE HOMEOSTASIS BY REGULATING BMP AND FGF SIGNALING PATHWAYS. S. Otsuki ¹ , S. Miyaki ¹ , S. P. Grogan ¹ , H. Asahara ¹ , M. Kinoshita ² , M. K. Lotz ¹ ; ¹ The Scripps Res. Inst., La Jolla, CA, ² Osaka Med. Coll., Osaka, JAPAN.	
10:00 AM-10:15 AM	55	HYPOXIA CONDITIONS DIFFERENTIALLY MODULATE NORMAL AND OSTEOARTHRITIC HUMAN ARTICULAR CHONDROCYTE PROTEOMES V. Carreira, C. Ruiz-Romero, J. Mateos, V. Calamia, B. Cillero-Pastor, P. Fernandez-Puente, F. Galdo, F. J. Blanco ; Osteoarticular and Aging Res. Lab. Proteomics Unit Associated Node to ProteoRed, INIBIC-Complejo Hosp. Univ. A Coruña, A Coruña, SPAIN.	
10:15 AM-10:30 AM	56	ALTERED WNT/B-CATENIN SIGNALING IN HUMAN OSTEOARTHRITIC SUBCHONDRAL OSTEOBLASTS IS DUE TO DICKKOPF-2 (DKK2) AND PROSTAGLANDIN E2 (PGE2) LEVELS. T. F. Chan , D. Couchourel, A. Delalandre, D. Lajeunesse; CRCHUM, Hôpital Notre-Dame, Montréal, QC, CANADA.	
10:30 AM-10:45 AM <i>Ballroom Foyer</i>		BREAK	
10:45 AM-12:15 AM <i>Westmount Room</i>		Plenary Session 4 OA YEAR IN REVIEW <i>Session Chairs:</i> <i>Francis Berenbaum, MD, PhD</i> <i>John Loughlin, PhD</i>	
		GENETICS <i>Kay Chapman, PhD</i>	CLINICAL TRIALS <i>Jean-Pierre Raynauld, MD, FRCPC</i>
		IMAGING <i>Phil Conaghan, MD, PhD, FRACP, FRCPC</i>	BIOMARKERS <i>Linda Sandell, PhD</i>
		CELL BIOLOGY <i>Anna Plaas, PhD</i>	BIOMECHANICS <i>Alan Grodzinsky, ScD</i>

SUNDAY