

# 제6차 대한골관절염 연골연구회 특강

일시 / 2014년 5월 15일(목)

장소 / 서울대학교병원 지하B강당

시간 / PM04:00~06:20

서울대학교병원 정형외과 Tel. 02-747-6148 Email. shlee3219@gmail.com

## Program

## Speaker

## Location

### 주제발표

- 04:00-04:30 "Cartilife" for articular cartilage repair: preclinical and clinical study 경희대학교 유전공학과 / 손영숙
- 04:30-05:00 Regulation of the catabolic cascade in OA by the Zinc-ZIP8-MTF1 Axis 광주과학기술원 생명공학과 / 전장수
- 05:00-05:30 A novel animal model of osteoarthritis 한림대학교 내과 / 김현아
- 05:30-05:40 Coffee break

### 해외연자 특강

- 05:40-06:20 Epigenetics and Cartilage Biology - the Role of (de)methylation in osteoarthritis Hospital for Special Surgery / Mary B Goldring

## Program

## Speaker

## Location



**Son, Young Sook, PhD**

E-mail: ysson@khu.ac.kr  
Center Director, Musculoskeletal Bioorgan Center of MOHW (2004-present)  
Professor, Kyung Hee University, Genetic Engineering (2006-present)  
KHU Fellow (2011-present)  
Dean, Graduate School of Biotechnology (2014-present)

### Research Interests

The Laboratory of Tissue Engineering is presently studying several research topics in the field of regenerative medicine for the development of cell therapies and bio-organs such as the identification of stem cells, control of cell differentiation, mass culture of stem cells, tissue engineering scaffold design, and cell preconditioning. Also We are identifying small molecules involved in stem cell trafficking, their mechanism of action, possible efficacy in stroke, myocardial infarction, diabetes, and retinopathy.

### Selected publication

- 1) Hong HS, Lee JS, Lee EunAh, Kwon YS, Lee EK, Ahn WS, Jiang MH, Kim JC and Son Y\* (2009), A new role of substance P as a injury-inducible messenger for mobilization of CD29+ stromal-like cells. Nature Medicine Vol.15, No.4, 425-435



**Chun, Jang-Soo, PhD**

E-mail: jschun@gist.ac.kr  
Associate professor/Professor, Gwangju Institute of Science and Technology. School of Life Science (2000-present)  
Director, Cell Dynamics Research Center (2000-present)

### Research Interests

Molecular mechanism of cartilage degeneration and osteoarthritis

### Selected publication

- 1) Kim JH, Jeon J, Shin M, Won Y, Lee M, Kwak JS, Lee G, Rhee J, Ryu JH, Chun CH, Chun JS\*. Regulation of the catabolic cascade in osteoarthritis by the zinc-ZIP8-MTF1 axis. Cell. 156(4):730-43 (2014).



**Kim, Hyun Ah, MD PhD**

E-mail: kimha@hallym.ac.kr  
Associate Professor, Div of Rheumatology, Dept. of Internal Medicine, Hallym University, College of Medicine, Chunchon, Korea (2004.10-present)

### Research Interests

Cartilage degeneration and osteoarthritis

### Selected publications

- 1) Park SJ, Cheon EJ, Kim HA. MicroRNA-558 regulates the expression of cyclooxygenase-2 and IL-1 $\beta$ -induced catabolic effects in human articular chondrocytes. Osteoarthritis Cartilage. 2013 Jul;21(7):981-9.
- 2) Park SJ, Cheon EJ, Lee MH, Kim HA. MicroRNA-127-5p Regulates Matrix Metalloproteinase 13 Expression and Interleukin-1 $\beta$ -Induced Catabolic Effects in Human Chondrocytes. Arthritis Rheum. 2013 Dec;65(12):3141-52.



**Mary B. Goldring**

Senior Scientist, Professor of Cell & Developmental Biology  
Hospital for Special Surgery (HSS), New York, NY  
1969 B.A. University of Oregon, Eugene  
1982 Ph.D. University of Sheffield, England

### Research Interest

My research during the past 30+ years has focused on the molecular regulation of extracellular matrix remodeling with special attention to cartilage biology. My major contributions include the development of in vitro models for the study of human chondrocyte biology and the identification of the molecular and cellular mediators involved in the deregulation of chondrocyte function and their roles in the pathogenesis of osteoarthritis (OA). Current work focuses on mouse models of OA with a view to relating findings to aspects of the human disease and studying the impact of transcriptional and epigenetic regulation on chondrocyte-specific gene expression. For example, we have created and established a breeding colony of the *Elf3<sup>fl/fl</sup>/Col2a1-Cre* mouse strain, in which *Elf3* is specifically deleted in cartilage, to evaluate the role of this stress- and inflammation-induced transcription factor in OA in vivo. My laboratory has also successfully established and optimized the surgical OA mouse model induced by the destabilization of the medial meniscus (DMM), as well as procedures for its characterization and interpretation of the data in relation to features shared by mouse OA models with human OA.

### Positions and Employment

- 1969-1971 Peace Corps Volunteer, Math and Science Teacher Training Program, Peru
- 1972 Research Technician, Arthritis Research, Columbia University College of Physicians and Surgeons, New York, NY
- 1972-1976 Research Assistant, Arthritis Research Unit, MGH, Boston, MA
- 1976-1982 Research Assistant & Ph.D. student, University of Sheffield Medical School, UK
- 1982-1984 Research Fellow in Medicine, Massachusetts General Hospital and Harvard Medical School, Boston, MA
- 1984-1985 Instructor in Medicine, Harvard Medical School, Boston, MA
- 1985-1989 Assistant Professor of Medicine (Cell Biology), Harvard Medical School, Boston, MA
- 1984-1991 Assistant in Biology, Massachusetts General Hospital, Boston, MA
- 1989-1997 Associate Professor of Medicine (Cell Biology), Harvard Medical School, Boston, MA
- 1991-1997 Associate Biologist, Massachusetts General Hospital, Boston, MA
- 1997-2006 Associate Professor of Medicine, Beth Israel Deaconess Medical Center, Boston, MA
- 2006- Senior Scientist, Hospital for Special Surgery (HSS), New York, NY
- 2009- Professor of Cell & Developmental Biology, Weill Cornell Medical College & Weill Cornell Graduate School of Medical Sciences, New York, NY
- 2013- Co-Director, Tissue Engineering Regeneration & Repair Program, HSS, New York, NY

## Program

## Speaker

## Location

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