



**Tissue Engineering and Regenerative Medicine  
International Society Asia-Pacific Chapter Conference 2022**

**TERMIS-AP 2022**

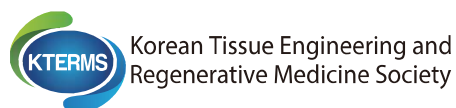
**October 5-8, 2022 / ICC Jeju, South Korea**

**New Chapter of Future Regenerative Medicine**

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# **Program Book**

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<b>02/</b>	Welcome Message
<b>05/</b>	Organizing Committee
<b>07/</b>	2022 TERMIS-AP Awardees
<b>08/</b>	Conference Information
<b>10/</b>	Scientific Information
<b>11/</b>	Useful Information
<b>12/</b>	Program at a Glance
<b>16/</b>	Floor Plan
<b>19/</b>	Plenary Lectures
<b>28/</b>	Symposia
<b>71/</b>	SYIS Oral Sessions
<b>77/</b>	General Posters Sessions
<b>93/</b>	SYIS Posters Sessions
<b>112/</b>	Optional Tour Program
<b>116/</b>	Authors Index
<b>138/</b>	Sponsors and Exhibitors



<sup>1</sup>Chung-Ang University, <sup>2</sup>Yonsei University College of Medicine,  
<sup>3</sup>Sookmyung Women's University, Republic of Korea

#### PS01-016

**Tailoring the bioactivity of a cell-derived extracellular matrix (ECM)-based material to exhibit superior pro-angiogenic and osteogenic properties**

Lih Ying SHIN<sup>1</sup>, Ho-Ying WAN<sup>1</sup>, Dan WANG<sup>1</sup>, Anna BLOCKI<sup>1</sup>

<sup>1</sup>Institute for Tissue Engineering and Regenerative Medicine, The Chinese University of Hong Kong

#### PS01-017

**Mesenchymal stromal cell exosomes modulate macrophage activities to promote joint repair in osteoarthritis**

Kristeen Ye Wen Teo<sup>1</sup>, Shipin Zhang<sup>1</sup>, Sai Kiang Lim<sup>2,3</sup>, Wei Seong Toh<sup>1,4,5,6</sup>

<sup>1</sup>Faculty of Dentistry, National University of Singapore, Singapore,

<sup>2</sup>Institute of Molecular and Cell Biology, Agency for Science, Technology

and Research (A\*STAR), Singapore, <sup>3</sup>Department of Surgery, Yong Loo Lin School of Medicine, National University of Singapore, Singapore,

<sup>4</sup>Department of Orthopaedic Surgery, Yong Loo Lin School of Medicine, National University of Singapore, Singapore, <sup>5</sup>Tissue Engineering

Program, Life Sciences Institute, National University of Singapore, Singapore, <sup>6</sup>Integrative Sciences and Engineering Program, NUS

Graduate School, National University of Singapore

#### PS01-018

**Enhancement of muscle tissue regeneration supplemented with bioactive components**

Hanjun Hwangbo<sup>2</sup>, JiUn Lee<sup>1</sup>, Hyeongjin Lee<sup>1</sup>, JaeYoon Lee<sup>1</sup>, WonJin Kim<sup>1</sup>, Youngwon Koo<sup>1</sup>, JuYeon Kim<sup>1</sup>, GeunHyung Kim<sup>1</sup>

<sup>1</sup>Department of Biomechatronic Engineering, College of Biotechnology and Bioengineering, Sungkyunkwan University (SKKU), 16419, Suwon,

<sup>2</sup>Sungkyunkwan university, Republic of Korea

#### PS01-019

**The bone regenerative potential of RANTES/CCL5 in the calvarial defects of rat**

Chang sung Kim<sup>1</sup>, Garam Jung<sup>2</sup>, Young woo Song<sup>2</sup>

<sup>1</sup>Department of Periodontology, Research Institute for Periodontal

Regeneration, College of Dentistry, Yonsei University, <sup>2</sup>Department of

Periodontology, Oral science research center, College of Dentistry, Yonsei

University, <sup>2</sup>Department of Periodontology, Research Institute for

Periodontal Regeneration, College of Dentistry, Yonsei University,

Republic of Korea

#### PS01-020

**Aligned alginate based cell-laden nanofibrous produced by cell electrospinning for corneal stromal regeneration**

SuHyeok Lee<sup>1</sup>, Hyeongjin Lee<sup>1</sup>, SooJung Chae<sup>1</sup>, Dongyun Kim<sup>1</sup>, Hanjun Hwangbo<sup>1</sup>, Amin Orash Mahmoudsalehi<sup>1</sup>, GeunHyung Kim<sup>1</sup>

<sup>1</sup>Sungkyunkwan University, Republic of Korea

#### PS01-022

**Fabrication of mechanically reinforced alginate/PCL scaffolds for hard tissue engineering**

MoHan Pei<sup>1</sup>, Hyeongjin Lee<sup>1</sup>, JaeYoon Lee<sup>1</sup>, SooJung Chae<sup>1</sup>,

JuYeon Kim<sup>1</sup>, Dongyun Kim<sup>1</sup>, Hanjun Hwangbo<sup>1</sup>, SeoYul Jo<sup>1</sup>,

GeunHyung Kim<sup>1</sup>

<sup>1</sup>Sungkyunkwan University, Republic of Korea

#### PS01-023

**Novel concept of guided bone (regeneration GBR) using collagen membrane with rhBMP-2**

Narae Jung<sup>1</sup>, Jae-han Park<sup>1</sup>, Young-bum Park<sup>1</sup>

<sup>1</sup>Yonsei Univ, Republic of Korea

#### PS01-024

**Therapeutic potential of multiple cycles collection of conditioned medium from different cell sources on wound healing model: In vitro study**

Nur Izzah Md Fadilah<sup>1</sup>, Mh Busra Fauzi<sup>2</sup>, Manira Maarof<sup>1</sup>

<sup>1</sup>Centre for Tissue Engineering and Regenerative Medicine, Faculty of

Medicine, Universiti Kebangsaan Malaysia, Cheras, Kuala Lumpur, 56000,

<sup>2</sup>Centre for Tissue Engineering and Regenerative Medicine, Faculty of

Medicine, Universiti Kebangsaan Malaysia, Cheras, Kuala Lumpur, 56000,

Malaysia

#### PS01-025

**A biphasic construct for osteochondral complex using modified transwell model**

Chengchong Ai<sup>1</sup>, James Goh<sup>1</sup>

<sup>1</sup>National University of Singapore, Singapore

#### PS01-026

**Effects of (glycosaminoglycan GAG) content in donor cartilage extracellular matrix on the functional properties of osteochondral allograft evaluated by  $\mu$ CT non-destructive analysis**

YONGJUN JIN<sup>1</sup>, Do Young Park<sup>1</sup>, Sujin Noh<sup>5</sup>, Dong Il Shin<sup>4</sup>,

Hee-Woong Yun<sup>3</sup>, Byong Hyun Min<sup>2</sup>

<sup>1</sup>Department of Orthopedic Surgery, School of Medicine, Ajou University,

<sup>2</sup>Department of Molecular Science and Technology and Department of

Orthopedic Surgery, School of Medicine, Ajou University, <sup>3</sup>Cell Therapy

Center, Ajou Medical Center, <sup>4</sup>Department of Molecular Science and

Technology, Ajou University, Republic of Korea, <sup>5</sup>Department of

Biomedical Sciences, Graduate School of Ajou University

#### PS01-027

**A transplantable pre-vascularized tissue platform by using a multi-material microfluidic 3D bioprinting method**

Donghwan Kim<sup>1</sup>, Uijung Yong<sup>1</sup>, Yoo-mi Choi<sup>1</sup>, Daekeun Kim<sup>1</sup>, Jinah Jang<sup>1</sup>

<sup>1</sup>POSTECH, Pohang, Gyeongbuk, 37666, Republic of Korea

#### PS01-028

**Exosome-encapsulating tissue-adhesive patch for diabetic wound regeneration**

Seung Yeop Han<sup>1</sup>, Eun Je Jeon<sup>1</sup>, Soohwan An<sup>1</sup>, Young Seok Song<sup>1</sup>, Seung-Woo Cho<sup>1</sup>

<sup>1</sup>Department of Biotechnology, Yonsei University, 03722 Seodaemun-gu,

Seoul, Republic of Korea

### October 5-6

## PS02 Biomaterials

(scaffold, 3D printing, fabrication, etc.)

#### PS02-001

**Dendritic cell-derived nanovesicles for targeted delivery of immune checkpoint inhibitors to improve therapeutic efficacy and prevent side effects**

Mungyo Jung<sup>1</sup>, Mikyung Kang<sup>1</sup>, Byung-Seok Kim<sup>1</sup>, Jihye Hong<sup>1</sup>,

Cheesue Kim<sup>1</sup>, Choong-Hyun Koh<sup>1</sup>, Garam Choi<sup>1</sup>, Yeonseok

Chung<sup>1</sup>, Byung-Soo Kim<sup>1</sup>

<sup>1</sup>Seoul National University, Republic of Korea

#### PS02-002

**Human hair keratin gradient hydrogels for skin regeneration**

Marin Yee Zhen Lin<sup>1,2</sup>, Ng Kee Woei<sup>1,3,4</sup>

<sup>1</sup>School of Materials Science and Engineering, Nanyang Technological

University, Singapore, <sup>2</sup>Institute for Health Technologies, Interdisciplinary

Graduate Programme, Nanyang Technological University, Singapore,

<sup>3</sup>Environmental Chemistry and Materials Centre, Nanyang Environment and

Water Research Institution, Singapore, <sup>4</sup>Center for Nanotechnology and