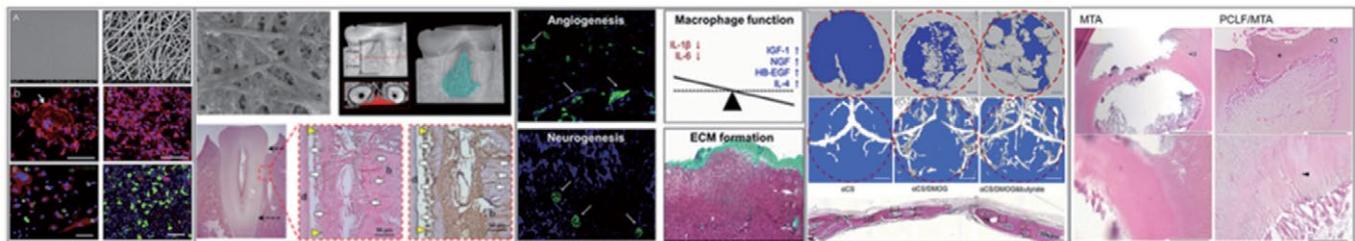


**Kyung Mi Woo, DDS, PhD**KYUNG MI WOO'S LAB.(BIO-INSPIRED TISSUE ENGINEERING LAB.)  
kmwoo@snu.ac.kr**RESEARCH OVERVIEW & CONTENT**

Woo's Lab has worked on the field of tissue engineering and regenerative medicine with backgrounds of cell biology and dentistry. Based on an idea that it is beneficial for biomaterials to mimic certain advantageous characteristics of a natural ECM or the developmental and wound healing processes, we have tried to uncover the mechanisms by which the bio-mimicking materials show good biological performance and to develop and apply bio-mimicking materials to regenerate (repair) tissues. Especially, we focus on the translational research for the regeneration of dental tissues such as dentin-pulp complex and periodontium (cementum-PDL-alveolar bone).

1. Host responses to the biomaterials with fibrous topography
2. Development of hybrid scaffolds for in situ regeneration
3. Development of small molecules-embedded biomaterials
4. Fibrous topography-mediated odontoblast differentiation
5. Epigenetic changes triggered by surface topography in PBMCs and MSCs

*Biomaterials, 2017**Acta Biomater, 2017**ACS AMI, 2017**Biomaterials, 2015**Acta Biomater, 2012*

[ Key words ] biomaterial-cell interfaces; nanofiber, 3D printing, small molecules, epigenetics

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