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DISTINGUISHED BIOMEDICAL ENGINEERING WEBINAR



“All for One in the Multiple Disciplinary Research of
Cartilage & Tendon Regeneration”

Hong Wei Ouyang, PhD
Zhejiang University

ABOUT THE WEBINAR

Tendon and cartilage are often the targets of sports injuries; they are especially fragile in aging human bodies. Decades of research from a tissue engineering approach found that these soft tissues are much more difficult to regenerate than hard skeletal tissues. The difficulty is due to the limited knowledge of soft tissue (specifically, cartilage and tendon) physiology and pathology. Here we provide an overview of our efforts in cartilage and tendon regeneration with the “all-for-one” approach, including the illustration of cartilage and tendon tissue science and tissue pathology with molecular biology, bioinformatics, and bioimaging research, the development of tissue regeneration technology with tissue engineering and clinical translation research. With the accumulation of new progress on 3T’s (tissue science, tissue pathology, and tissue engineering), it presents the hope of “precise blocking-up of pathology and rapid promotion of regeneration” in future cartilage and tendon injuries and disease treatment.

ABOUT THE SPEAKER

Hongwei Ouyang, PhD, *Vice Dean, International Campus, Zhejiang University; Dean, Zhejiang University - University of Edinburgh Institute; Vice Dean, Zhejiang University School of Medicine*

Hongwei Ouyang, PhD is the Qiu-shi distinguished professor of Zhejiang University, and honorary professor of the University of Edinburgh. His research focuses on cartilage and tendon regeneration with biomaterials and stem cells. Prof. Ouyang is one of the pioneers of leading clinical cartilage tissue engineering and clinical translation of silk scaffolds for soft tissue repair. His research has been recognized with a number of awards, including the National Science Fund for Outstanding Young Scholars, the Science and Technology Progress Award (first prize, 2012) and the Technology Invention Award (first prize, 2019) from the Minister of Education (MoE) of China, as well as a number of best research papers in ICRS and IST&L. He is the chair of the China Society of Tissue Engineering and Regenerative Medicine, a Fellow of AIMBE, and a Fellow of ICORS.



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