

Youngcheol Kang

Curriculum Vitae



Vice President
R&D Division, PAEAN Biotechnology, Korea

Educational Background & Professional Experience

- 2019.11- PAEAN biotechnology Inc.
- 2019 PhD, Kyunghee University
- 2012 MS, Kyunghee University
- 2010 BS, Kangwon National University

Research Interests

- Mitochondrial transplantation therapeutics for rare and degenerative diseases
- iPSC/UC-MSC-derived mitochondria: isolation, quality control, and clinical-grade manufacturing
- Translational drug development: preclinical-to-clinical IND strategy
- Drug delivery systems for mitochondrial targeting (BBB penetration, biodegradable vesicles)

Publications

1. Kim D, Lee SE, Cha J, Lee JH, Kang YC*, Lee SY*. Mitochondrial transplantation restores mitochondrial content and function in SSBP1-related mitochondrial DNA depletion syndrome. BMB Rep. 2026.
2. Cui HX, Liu JX, Han K, Lee HK, Kim CH, Kang YC*, Zhang YH*. Human umbilical mesenchymal stem cell-derived mitochondria transplantation suppresses sFLT-1 secretion by regulating calcineurin-NFAT-dependent pathways in angiotensin II-induced preeclampsia rats. Stem Cell Research & Therapy. 2026.
3. Kim Y, Kim Y, Kim BJ, Yu SH, Han JH, ... Kang YC*, Choi BY*. A novel BCAP31 variant associated with nonsyndromic auditory neuropathy spectrum disorder: mitochondrial dysfunction, cisplatin sensitivity, and amenability to mitochondrial transplantation. Journal of Translational Medicine, 2025.
4. Kim JY, Kang YC, Kim MJ, Kim SU, Kang HR, Yeo JS, ... & Lee EY*. Mitochondrial transplantation as a novel therapeutic approach in idiopathic inflammatory myopathy. Annals of the rheumatic diseases, 2025.
5. Kang YC, Lee SE, Kim IH, Kim Y, Yu SH, Yeo JS, ... & Kim CH*. Mitochondrial transplantation attenuates lipopolysaccharide-induced acute respiratory distress syndrome. BMC Pulmonary Medicine, 2024.