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강연제목: Nanoparticles and Immunocytes

Abstract:

The translation of nanoparticles into clinical settings is hindered by inefficient targeting (average efficacy of only 0.7% according to a meta-analysis) and uncertain post-targeting actions. Since most nanoparticles are captured by immunocytes, it is crucial to evaluate the immunocyte-mediated effects of these particles at disease sites. Among the immunocytes, splenic monocytes not only naturally filter out nanoparticles from the blood but also inherently target inflamed sites. Therefore, leveraging splenic monocytes as secondary carriers or reprogramming them into vasculogenic cells could effectively treat inflamed diseases. In this study, we evaluated these two strategies to address unmet clinical needs in vascular disease and explored the potential broader applications of immunocyte-based nanoparticle treatments.

Brief Biosketch

연세대학교 의과대학을 졸업하고 (2009 – 2015), 동 대학 의공학교실에서 의학 박사 학위를 취득하였음 (2018 – 2024). 연세대학교 세브란스병원에서 전공의 수련 후 (2015 - 2020) 내과 전문의 자격을 취득하였음. 나노기술의 임상융합을 위한 다양한 연구를 수행하고 있음.