



## Recent Advances in Improving or Preserving Therapeutic Potential of Extracellular Vesicles as Regenerative Medicines

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### Message from the Guest Editors

Dear Colleagues,

Extracellular vesicles (EVs) are intercellular communication tools that carry effector biomolecules inside to mediate normal physiological processes and disease pathogenesis. In particular, regenerative and immunomodulatory EVs have been highly regarded as innate bio-therapeutics to treat a variety of diseases during the past decade. Although stem cells are the main source of producing these EVs, related research has expanded to utilize immune cells and specific organ-originated cells.

We are seeking recent efforts in the field of regenerative medicine for enhancing the therapeutic efficacy, efficiency, and stability of EVs to foster their clinical translation using three specific approaches: (1) preconditioning to improve EV bioactivity by applying chemical or physical stimuli, (2) surface modification for transporting EVs properly to the lesion by introduction of targeting components on them, and (3) development of formulations to preserve the structural integrity and therapeutic components of EVs.





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