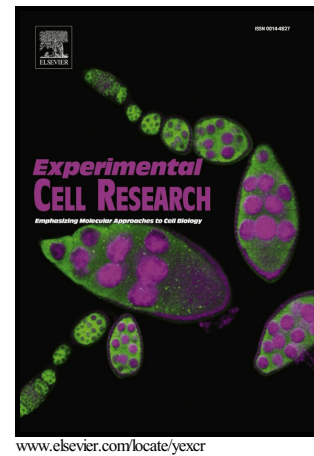


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**Cell-free therapy based on adipose tissue stem cell-derived exosomes promotes wound healing via the PI3K/Akt signaling pathway**

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## **Abstract**

### **Introduction**

Adipose tissue-derived stem cells (ADSCs) have been shown to enhance wound healing via their paracrine function. Exosomes, as one of the most important paracrine factors, play an essential role in this process. However, the concrete mechanisms that underlie this effect are poorly understood. In this study, we aim to explore the potential roles and molecular mechanisms of exosomes derived from ADSCs in cutaneous wound healing.

### **Methods**

Normal human skin fibroblasts and ADSCs were isolated from patient skin and adipose tissues. ADSCs were characterized by using flow cytometric analysis and adipogenic and osteogenic differentiation assays. Exosomes were purified from human ADSCs by differential

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<sup>1</sup> These authors contributed equally to this work.

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