**Supplementary table 4 Top 10 most frequently co-cited references of** **exosomes in the field of regenerative medicine**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Rank | Title | Journal IF(2021-2022) | Author | Publication time | Citations | Quartions in category（JCR） |
| 1 | Exosome-mediated transfer of mRNAs and microRNAs is a novel mechanism of genetic exchange between cells | Nature Cell Biology IF(28.213) | Valadi H et al. | 2007 | 273 | Q1 |
| 2 | Exosome secreted by MSC reduces myocardial ischemia/reperfusion injury | Stem Cell Research IF(1.587) | Lai RC | 2010 | 261 | Q4 |
| 3 | Extracellular vesicles: exosomes, microvesicles, and friends | The Journal of Cell Biology IF(8.007) | Raposo G | 2013 | 198 | Q1 |
| 4 | Isolation and characterization of exosomes from cell culture supernatants and biological fluids | Current Protocols in Cell Biology IF(2.726) | Thery Clotilde | 2006 | 153 | None |
| 5 | Minimal information for studies of extracellular vesicles 2018 (MISEV2018): a position statement of the International Society for Extracellular Vesicles and update of the MISEV2014 guidelines | Journal of Extracellular Vesicles IF(17.337) | Thery C | 2018 | 151 | Q1 |
| 6 | Exosomes as critical agents of cardiac regeneration triggered by cell therapy | Stem Reports IF(7.294) | Ibrahim Age | 2014 | 136 | Q2 |
| 7 | Concise Review: MSC-Derived Exosomes for Cell-Free Therapy | Stem Cells IF(5.845) | Phinney DG | 2017 | 136 | Q1 |
| 8 | Mesenchymal stem cell-derived exosomes increase ATP levels, decrease oxidative stress and activate PI3K/Akt pathway to enhance myocardial viability and prevent adverse remodeling after myocardial ischemia/reperfusion injury | Stem Cell Research IF(1.587) | Arslan F | 2013 | 135 | Q4 |
| 9 | Biogenesis, secretion, and intercellular interactions of exosomes and other extracellular vesicles | Annual Review of Cell and Developmental Biology IF(11.902) | Colombo M | 2014 | 129 | Q1 |
| 10 | Exosomes derived from human embryonic mesenchymal stem cells promote osteochondral regeneration | Osteoarthritis and Cartilage IF( 7.507) | Zhang S | 2016 | 127 | Q1 |

**Supplementary table 5 Cluster co-occurrence keywords analysis of exosomes in the field of regenerative medicine**

|  |  |  |  |
| --- | --- | --- | --- |
| Cluster Name | Selected Terms for Each Cluster | Legend | Number of Clusters |
| #1  Injury repair | Injury(82),Functional recovery(71),Cells(51),Macrophages(43),Extracellular vesicle(40),Spinal cord injury(36),Biomarkers(35),Neurovascular plasticity(33) |  | 114 |
| #2  Heart regeneration | Angiogenesis(224),Therapy(150),Myocardial-infarction(89),Microrna(84),Proginetor cells (80),Endothelial-cells(63),Heart(48),Cardiac regeneration(42) |  | 96 |
| #3  Bone regeneration and repair | Differentiation(186),Repair(162),osteoarthritis(72),bone regeneration(52),osteogenic differentiation(48),osteogenesis(43),knee(28) |  | 66 |
| #4  Secretory expression of exosomes | Regeneration(406), Stelm-cells(182),Expression(155),Secretome(43),  Vesicles(32), Skin(22) |  | 59 |
| #5  Action mechanism of exosomes | Inflamation(124),Mechanisms(78),Apoptosis(69),Growth(60),Mesenchymal stem cell(57),Fibrosis(37) |  | 56 |
| #6  Proliferation and migration of exosomes | Exosomes(895),Prolifetaion(123),Transplantation(121), Micrornas（115）,  Migration(48),Wound healing(41) |  | 45 |
| #7  Exosome mechanism in-vitro | Extracellular vesicles(531),Stromal cells (230),Microvesicles(187),Mesenchymal stem cells(185),In-vitro(183),Bone-marrow(109) |  | 40 |
| #8  Exosome transformation pathway | Mesenchymal stromal cells(78),athway(35),Macrophage(10)  Macrophage polarization(10),Induction(9) |  | 24 |