

Supplementary Table 4: Cell Criteria per Included Studies

| Study | Cell Type | Purchased or Self-isolated? | Plastic Adherence | Positive Markers | Negative Markers | Differentiation capability | Cell expansion media | Passage Number |
|-----------------------|---------------------------------------------------------|-----------------------------|-------------------|--------------------------------|---------------------------------------------|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <i>Barco 2014</i> | Allogenic adipose-derived MSCs | Self-isolated | Yes | CD73, CD90, CD105 | CD34, CD44 | Yes | DMEM + 10% FBS + 1% penicillin/streptomycin | Not Reported |
| <i>Chen 2015</i> | Xenogenic human adipose-derived MSCs | Purchased | Yes | CD29, CD44, CD73, CD105, CD166 | CD14, CD31, and CD45 | Not reported | Keratinocyte-SFM basal medium + 10% FBS + 50 µg/ml bovine pituitary extract + 5 ng/ml human recombinant epidermal growth factor + 2 mM N-acetyl-L-cysteine + 0.2 mM L-ascorbic acid 2-phosphate. | 3 |
| <i>Degan 2016</i> | Xenogenic human bone marrow-derived MSCs | Purchased | Yes | CD73, CD90, CD105 | CD11b, CD14, CD19, CD34, CD45, CD79, HLA-DR | Not reported | ATCC provided MSC basal media + ATCC growth kit for bone marrow-derived MSCs | 5 |
| <i>Gullota 2009</i> | Allogenic bone marrow-derived MSCs | Self-isolated | Yes | Not reported | Not reported | Not reported | DMEM, + 10% FBS + 1% antibiotic-antimycotic | 3 |
| <i>Kaizawa 2019</i> | Allogenic "Luciferase-transfected" adipose-derived MSCs | Purchased | Yes | Not Reported | Not Reported | Not Reported | Not Reported | 2 and 3 |
| <i>Kim 2017</i> | Xenogenic human adipose-derived MSCs | Self-Isolated | Yes | CD40, CD44, SOX-2, TGF-β1 | Not Reported | No | DMEM + 10% FBS + 1% antibiotic-antimycotic | Not Reported |
| <i>Kwon 2018</i> | Xenogenic human umbilical cord-derived MSCs | Self-Isolated | Not Reported | CD29, CD73, CD90, CD105, CD166 | CD14, CD45, HLA-DR | Yes | Not Reported | Not Reported |
| <i>Learn 2018</i> | Allogenic Bone marrow-derived MSCs | Self-Isolated | Not Reported | CD44 | CD45, CD90 | Not reported | DMEM + 10% FBS + 1% penicillin/streptomycin | 2 |
| <i>Lipner 2015</i> | Allogenic adipose-derived MSCs | Self-isolated | Yes | Not reported | Not reported | Not reported | Not reported | 3 |
| <i>Liu 2019</i> | Autologous bone marrow-derived MSCs | Self-isolated | Yes | Not reported | Not reported | Not reported | DMEM + 10% FBS + 1% antibiotic-antimycotic | 2 |
| <i>Oh 2014</i> | Allogenic adipose-derived MSCs | Self-isolated | Yes | Not Reported | Not Reported | Not Reported | DMEM + 5% FBS | 3 |
| <i>Omi 2016</i> | Allogenic bone marrow-derived MSCs | Self-isolated | Yes | Not Reported | Not Reported | Not Reported | DMEM + 10% FBS + 1% antibiotic-antimycotic | 2 and 3 |
| <i>Park 2015</i> | Xenogenic human umbilical cord-derived MSCs | Self-isolated | Not Reported | CD29, CD73, CD90, CD105, CD166 | CD14, CD45, HLA-DR | Yes | Not Reported | Not Reported |
| <i>Rothrauff 2018</i> | Allogenic adipose-derived MSCs | Self-isolated | Not Reported | Not Reported | Not Reported | Yes | DMEM + 10% FBS + 1% antibiotic-antimycotic | 2 |
| <i>Smietana 2017</i> | Allogenic bone marrow-derived MSCs | Self-isolated | Yes | Not Reported | Not Reported | Not Reported | DMEM + 20% FBS + 2% antibiotic-antimycotic + 600ng/mL bFGF + 40 ng/mL dexamethasone. | 3 and 4 |
| <i>Tornero 2015</i> | Allogenic bone marrow-derived MSCs | Self-isolated | Yes | Not Reported | Not Reported | Not Reported | Not Reported | Not Reported |
| <i>Valencia 2014</i> | Allogenic adipose-derived MSCs | Self-isolated | Yes | CD90, CD29, CD45, CD11b | Not Reported | Not Reported | DMEM + 10% FBS + 1% penicillin/streptomycin | Not Reported |
| <i>Yokoya 2012</i> | Autologous bone marrow-derived MSCs | Self-isolated | Yes | Not Reported | Not Reported | No | DMEM + 10% FBS + penicillin-streptomycin-amphotericin B + 10 µM bromodeoxyuridine | Not Reported |

(FBS) Fetal bovine serum, (DMEM) Dulbecco's Modified Eagle Medium, (MSC) Mesenchymal stem cell