BMA vs SVF comparison statistics:

Adipose tissue contains a large number of multipotent cells, which is an essential prerequisite for stem-cell-based therapies**. It has been described that stem and progenitor cells** **in the uncultured stroma-vascular fraction (SVF) from adipose** **tissue usually amount to up to 3% of the whole cells,** **and this is 2,500-fold more than the frequency of stem cells** **in bone marrow** [21]. Others have also described that adipose tissue provides large numbers of stem cells compared to bone marrow. **A bone marrow transplant contains approximately** **6 × 106 (6,000,000) nucleated cells per mL [22], of which only 0.001–0.01% (600-6000) are stem cells [23]. In comparison, the number of** **SVF cells that can be isolated from subcutaneous liposuction** **aspirates is approximately 0.5–2.0 × 106 cells per gram of** **adipose tissue [22, 24–27], whereby the percentages of stem** **cells range from 1 to 10% [26, 28, 29], most likely depending** **on the donor and tissue harvesting site. Therefore, approximately** **0.5 × 104(5,000) to 2 × 105 (200,000) stem cells can be isolated per** **gram of adipose tissue, varying among patients**.

[21] J. K. Fraser, M. Zhu, I. Wulur, and Z. Alfonso, “Adipose derived stem cells,” Methods in Molecular Biology, vol. 449, pp. 59–67, 2008.

[22] D. A. De Ugarte, K. Morizono, A. Elbarbary et al., “Comparison of multi-lineage cells from human adipose tissue and bone marrow,” Cells Tissues Organs, vol. 174, no. 3, pp. 101– 109, 2003.

[23] M. F. Pittenger, A. M.Mackay, S. C. Beck et al., “Multilineage potential of adult human mesenchymal stem cells,” Science, vol. 284, no. 5411, pp. 143–147, 1999.

[24] P. A. Zuk, M. Zhu, H. Mizuno et al., “Multilineage cells from human adipose tissue: implications for cell-based therapies,” Tissue Engineering, vol. 7, no. 2, pp. 211–228, 2001.

[25] L. Aust, B. Devlin, S. J. Foster et al., “Yield of human adipose-derived adult stem cells from liposuction aspirates,” Cytotherapy, vol. 6, no. 1, pp. 7–14, 2004.

[26] M. J. Oedayrajsingh-Varma, S. M. van Ham,M. Knippenberg et al., “Adipose tissue-derived mesenchymal stem cell yield and growth characteristics are affected by the tissue-harvesting procedure,” Cytotherapy, vol. 8, no. 2, pp. 166–177, 2006.

[27] Y. Zhu, T. Liu, K. Song, X. Fan, X. Ma, and Z. Cui, “Adipose derived stem cell: a better stem cell than BMSC,” Cell Biochemistry and Function, vol. 26, no. 6, pp. 664–675, 2008.