



# An Optimized Method for Adipose Stromal Vascular Fraction Isolation and its Application in Fat Grafting

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Sir,

We read with great interest the article entitled “An Optimized Method for Adipose Stromal Vascular Fraction Isolation and its Application in Fat Grafting” by Cao et al. [1] in *Aesthetic Plastic Surgery*. In this article, the authors established a stromal vascular fraction (SVF) isolation method that combines both mechanical and enzymatic procedures. Research on adipose stem cells had been popular in the academic community. However, some bottleneck problems have not been solved, such as age-related functional decline, tumorigenicity, translational hurdles of *ex vivo* manipulation, [2] culture-related senescence, heterogeneity in cellular components, and unstable efficacy and extraction efficiency.

Based on the authors’ hypothesis, the efficacy of SVF isolation in the combination group was superior to that with solely enzymatic isolation or mechanical isolation. Undoubtedly, adding two control groups (solely enzymatic isolation and solely mechanical isolation) would help reduce environmental bias. In addition, based on the authors’ description, the introduction of mechanical steps would reduce the action time and concentration of

collagenase, which is similar to the principle of microvascular fragments (MVF) [3]. Thus, we are interested in how the authors feel about their product differs from MVF.

Although the authors achieved encouraging results, the introduction of exogenous collagenase put this method in the enzymatic isolation, due to the issue of safety of collagenase. We should be aware that cell-based products are subject to strict regulations in many countries including China.

## Declarations

**Conflict of interest** The authors declare that they have no conflicts of interest to disclose.

**Human and Animal Rights** This article does not contain any studies with human participants or animals performed by any of the authors.

**Informed Consent** For this type of study informed consent is not required.

## References

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