

## CASY<sup>VIVO</sup> Cell Counter & Analyzer - Powering Breakthroughs in Cell Research

### Standardizing ASC Culture and Quantifying Morphological Shifts

Rauchenwald et al. (2023) Preadipocytes in human granulation tissue: role in wound healing and response to macrophage polarization. *Inflammation and Regeneration* (2023) 43:53. DOI: 10.1186/s41232-023-00302-5

Stem Cell, Adipose Derived SC, ASC	
Index	SC3
Standardization	X
Counting	X
Viability	X
Volume	X

#### The Challenge:

Investigating the effects of macrophages on preadipocytes in wound healing required consistent experimental setups and detailed analysis of cell changes beyond just numbers.

#### CASY's Contribution:

The CASY Cell Counter was vital for precisely determining the number of adipose-derived stem cells (ASCs) for standardized culturing (10,000 cells/cm<sup>2</sup>). Furthermore, CASY provided critical data on changes in cell volume and diameter following treatment, offering deeper biological insights into cellular morphology

#### Key Benefits to Researchers:

- **Standardization for Reproducibility:** Achieve consistent plating densities and highly reliable, comparable experimental data.
- **Quantitative Cellular Morphology:** Gain deeper biological insights by accurately analyzing changes in cell volume and diameter, beyond simple cell counts.
- **Ensured Data Quality:** Act as a crucial quality control step, guaranteeing that results are based on precise numbers of healthy cells, preventing skewed data.
- **Essential for Regenerative Medicine:** Supports robust research in complex areas like wound healing and stem cell interactions.

#### CASY Accurately Quantifies Changes in ASC Volume and Diameter, Ensuring Experimental Consistency in Regenerative Medicine Studies

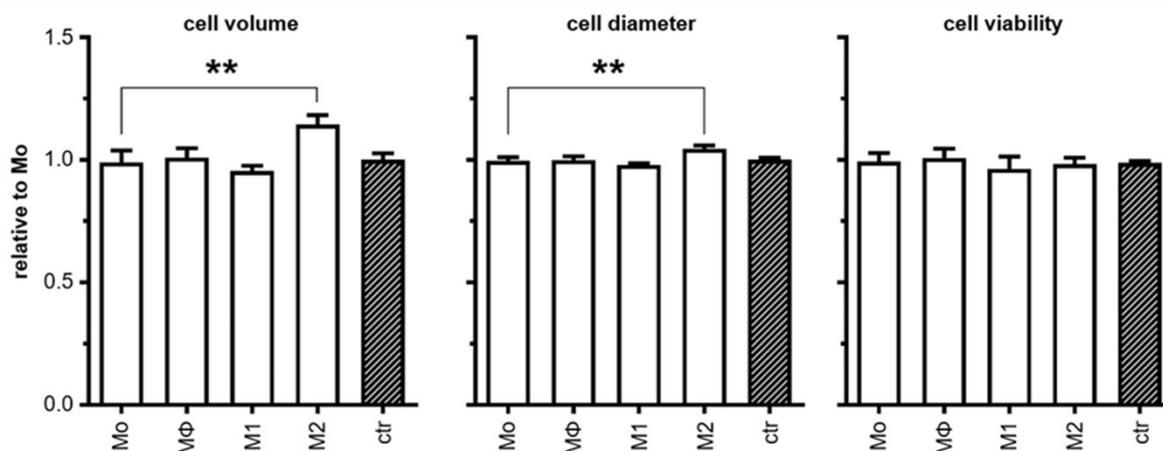


Figure 5: Effect of MQ-CM on ASC size and viability. Cell volume, cell diameter, cell viability