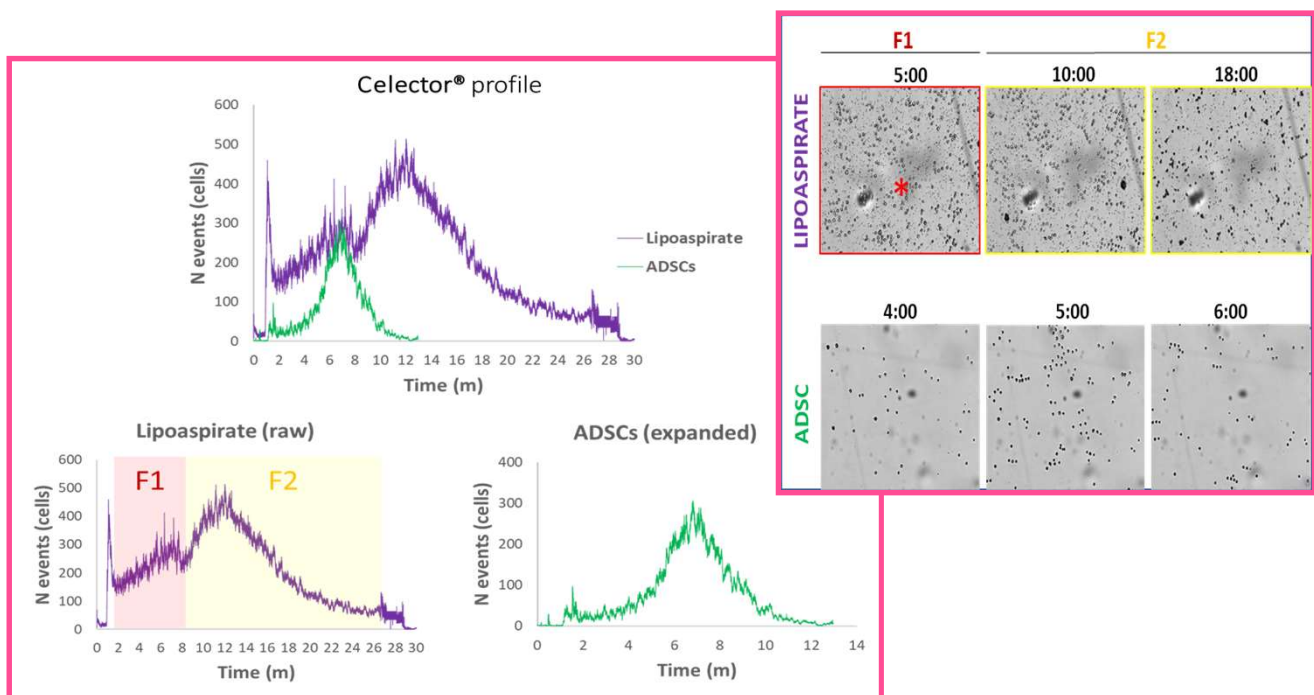


# QC of adipose tissue and mesenchymal stem cells separation

## Overview

Stem cells are a promising tool for cell therapy and regenerative medicine. **Adipose tissue** is a new source for **multipotent stem cells**, and thanks to its availability from discarded clinical liposuction it represents an ideal source. Novel technologies are present in the market for liposuction. Obtained tissue can be immediately injected into patients for regenerative or aesthetic reconstruction purposes.

Celector® technology is able to directly process liposuction samples harvested with micro-cannulas for **sample's QC and to separate** mesenchymal stem cells for cell therapy applications.



**Figure 1. Analysis of fresh lipoaspirate sample and ADSCs expanded in culture by Celector® technology.** Fresh lipoaspirate sample shows two peaks; the first one corresponds to the profiling of the ADSCs.

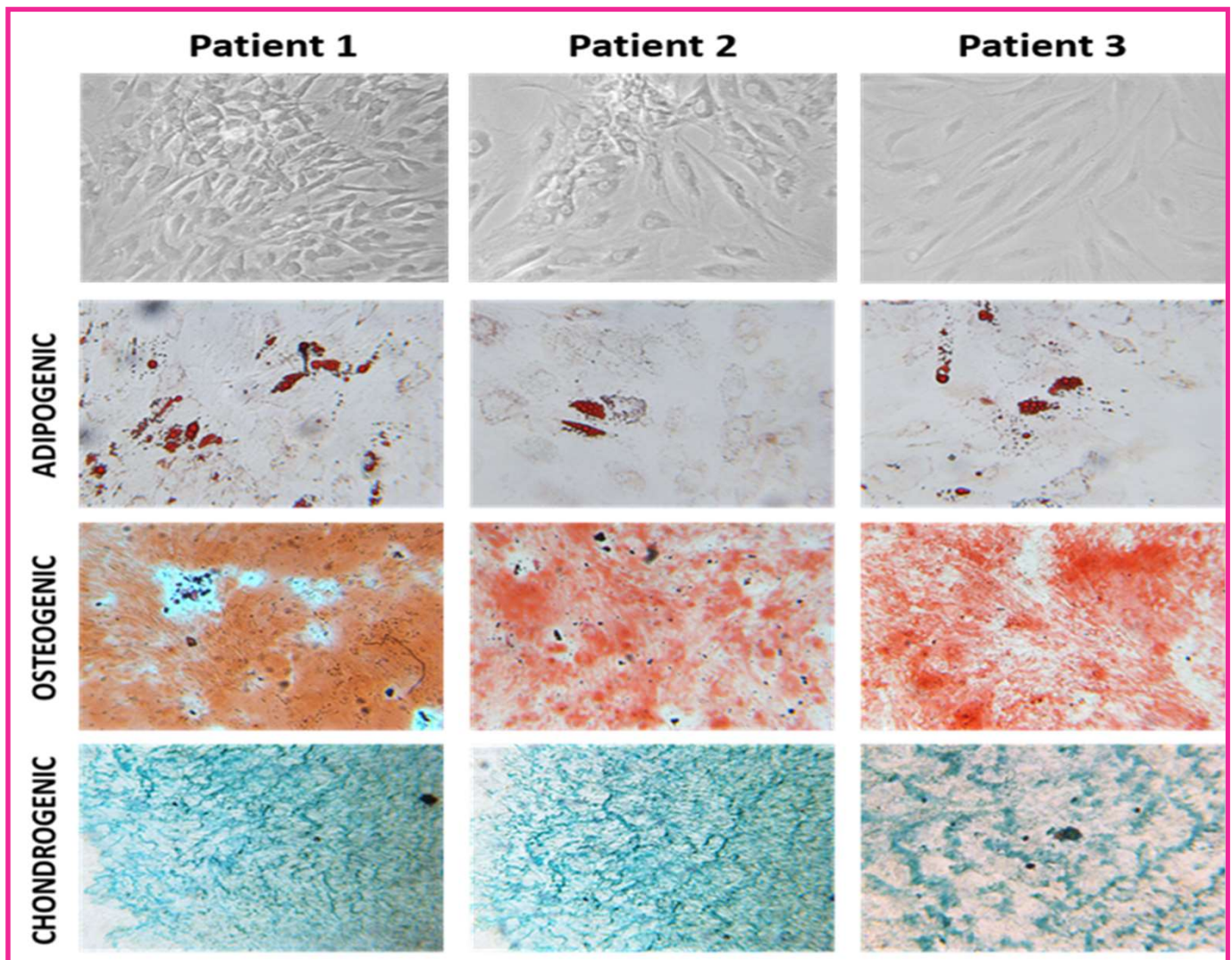
## Details

- **Direct processing** of clinical liposuction sample harvested by micro cannulas;
- **No need of sample manipulation**, keeping stem cells in their naïve state;
- Reduced isolation time;
- **Depletion** of red blood cells and extracellular matrix (ECM);
- **Sterility and viability preserved**



Stem Sel®

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**Figure 2. Morphological analysis of ADSCs and their differentiation potential** towards adipogenic, osteogenic and chondrogenic lineage. ADSCs were derived from adipose tissue harvested with the three cannulas.

### Applications

- **Quality control** of lipoaspirate samples, RBCs and ECM composition;
- **Depletion** of oil droplets and RBCs, sample cleaner;
- **Isolation** of MSCs