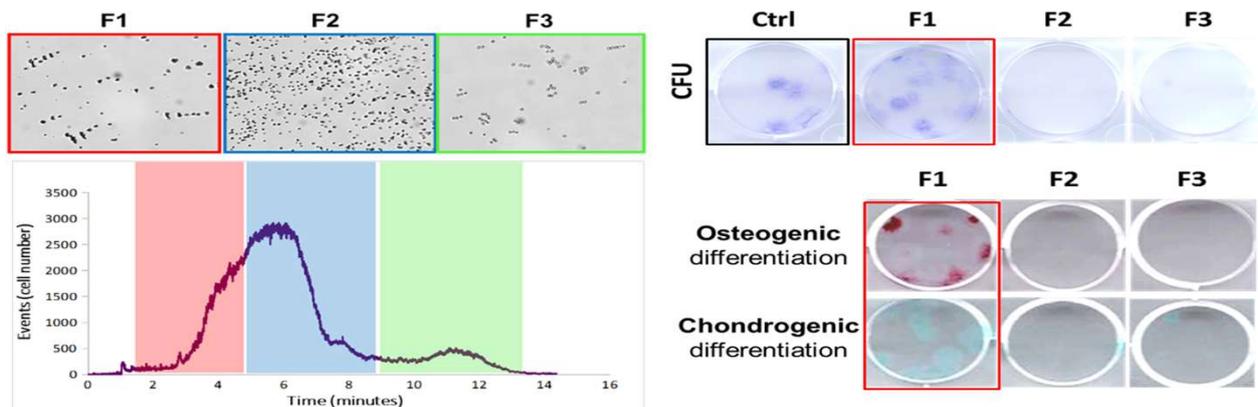


Celector® - the “Cell Chromatograph”



Celector® is a **patented** instrumentation for the **separation, isolation, real-time microscopy and collection of living cells**, as they were molecules in **chromatography**. Celector® **tag-less separates** cells solely based on their native physical properties. The absence of immuno-tagging is the unique feature of Celector®: it avoids possible cell alterations, keeping the native physiology and, in the case of stem cells, the regenerative power. On the screen of Celector®,

you can also see the **cells floating during their separation, and tracked by a camera** like the frames of a movie. Alongside the **separation movie**, you can also observe a single frame, with the screenshot option, where the target cells are separated from the other cells, to be further studied when frames are saved in a library. Celector® (and relevant consumables and disposables) will be **commercialized from mid. 2019** for different applications to cell biology/biotech, particularly to **multipotent, living stem cell analysis**, from cell therapy in Regenerative Medicine to *in-vitro* cell tests for drug discovery and development.



The core application of Celector® is seen in the field of **cell biology/biotech**, such as Cell Therapy. As with standard drugs in standard therapy, cell therapy applications require rigorous **Quality Control** of the used cells.

A **chromatography-like method** able to separate, profile and collect different cell populations present in such complex samples **does not exist** yet. Celector® is the **new solution** to be implemented in the QC lab platform: **no immuno-tags** are required, so **fully viable and non-manipulated cells** can be **profiled** and **collected** for further characterization or **stored/cultured/amplified/injected**



Stem Sel®

Stem Sel s.r.l. - Novel technologies for cell sorting
Viale Giuseppe Fanin, 48 - 40127 Bologna, Italy - tel: +39 0516336638
VAT code 03331751200 - paid-up capital stock 21.427,76 €
info@stemsel.it - www.stemsel.it

An easy *selection* and *quality control*

Competitive Advantage

Compared to reference techniques for cell analysis and sorting, the **value proposition** of Celector® can be bulleted as follows:

Exclusive application: the only separation technique able to perform QC and tag-less selection of living cells via time-resolved separation in sterile conditions.

Additional advantages:

Shorter time of analysis

Less expensive analyses

Real-time quality control of the sample

Full preservation of cell viability

High purity of the isolated cell population

Suited to complex, raw cell samples analysis

Target Market

Thanks to Celector® features and applications, the market is related to various sectors, with a focus on stem cells. In particular:

Cell analysis

Regenerative medicine

Cell-based assays

Cell sorting

The Cell Analysis market will reach USD 26.0 Billion by 2020, growing at a CAGR of 6.56% from 2015 to 2020. The Regenerative Medicine market is estimated to reach USD 38.70 Billion by 2021 (from USD 13.41 Billion in 2016) at a CAGR of 23.6%.

MKT Strategy

Celector® will be sold with related consumables (i.e. the separation device, and sample inlet and outlet distributors) and disposables (i.e. liquids and buffers) by pivotal **commercial partners/distributors** to customers dealing with **cell analysis and characterization**, such as Hospitals and Academic & Research Institutes, Contract Research Organizations (CROs) and Pharmaceutical & Biotechnology Companies, and Cell Factories & Banks. In particular, clients who need to control the quality of their cell samples before to re-inject or cryopreserve them, or to develop new applications based on stem cells, specifically multipotent stem cells such as mesenchymal stem cells from adult tissues. A **service-based** business unit will develop **customized protocols & data analysis** for Celector® customers.



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