

Each quarter, Stem Cell Intel will provide you with the latest product news, a column from one of our experts, upcoming industry events, and easy access to technical tools such as publications, protocols, FAQs, and more. To subscribe to Stem Cell Intel, go to [lifetechnologies.com/stemcellintel](http://lifetechnologies.com/stemcellintel)

## Events



### Heading to ISSCR? I have a mission for you.

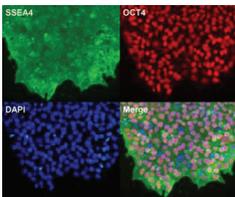
Greetings, scientist! My name is Stem, and I am the most versatile (and difficult) of all cells. But, of course, you already know who I am—I'm a star!

I'm heading to Vancouver for the International Society for Stem Cell Research (ISSCR) 12th Annual Meeting, and I have a case to solve. If you help me solve it, you will be rewarded.\*

Will you help me? Watch this [47-second video](#) for more details.

You can meet me in person at booth #829 on June 18.

## Product news



### Stem cell images to impress the skeptics

The newly released Pluripotent Stem Cell (PSC) 4-Marker Immunocytochemistry (ICC) Kit is the only commercial kit offering superior imaging for PSCs in one box. This kit conveniently includes high-affinity primary and secondary antibodies with an optimized fixation and permeabilization reagent that preserves the structure of surface glycoproteins SSEA4 and TRA-1-60. The kit includes two marker sets, OCT4 + SSEA4, and SOX2 + TRA-1-60. It provides everything required to complete the staining procedure, including wash and block solutions and a nuclear stain, allowing you to reproducibly create multispectral, multiplexed images of embryonic stem cells (ESCs) or induced pluripotent stem cells (iPSCs).

[See how they perform](#)

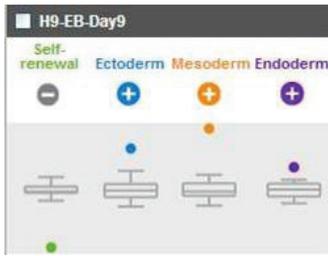


### Introducing the PSC Cardiomyocyte Differentiation Kit

The use of cardiomyocytes in areas such as disease modeling, drug safety, and cell therapy research is expanding rapidly. However, cardiomyocytes can be challenging or expensive to obtain due to the skills required for cumbersome PSC differentiation methods or procurement from high-priced cryopreserved cell providers. We have introduced the PSC Cardiomyocyte Differentiation Kit, a serum-free and xeno-free Gibco® medium that provides efficient differentiation of human pluripotent stem cells (HPSCs) to contracting cardiomyocytes in as few as 8 days. Unlike other methods that require multiple components and longer assay duration, our PSC Cardiomyocyte Differentiation Kit generates cardiomyocytes from PSCs using a ready-to-use media format and in less time. Differentiated cardiomyocytes express relevant physiological markers, contract in culture, and can be subsequently maintained in culture for >15 days.

**This convenient new kit launches June 16, 2014.**

[Contact us if you have any questions](#)



## Welcome to the upgraded hPSC Scorecard™ Analysis Software

Not only does this new version of the software have an enhanced interface, it also enables you to get results faster, graph your scores against the reference set, and create a new expression heat map. The upgraded hPSC Scorecard™ Analysis Software continues to provide quantitative evaluation of your undifferentiated and embryoid body samples while adding these frequently requested features:

- Display of all 4 results (self-renewal, ecto, endo, meso) on the main page
- Visual map on the main page, comparing the score of your sample to the reference set
- Elimination of the cell type definition step, enabling faster access to your results
- Exportable box plot, displaying the four scores for up to 12 samples against the reference set
- Display of heat map, showing fold change of each gene relative to the reference set (replaces the delta C<sub>t</sub> expression plot)

[Log in and create a demo report today](#)



## Rupa's corner

### My love affair with a microscope

In our scientific careers, every so often we come across a piece of equipment that proves to be extremely valuable for the kinds of experiments that we conduct. Everyone who knows me knows of my love affair with the EVOS® cell imaging system. I was introduced to this microscope a few years ago by an AMG sales representative. My team and I were able to try it in our training course and outreach program. I was thrilled when we purchased AMG.

The EVOS® cell imaging system has proven to be extremely valuable in our ongoing stem cell training courses and my numerous customer visits.

Here are the top 8 reasons why I think every stem cell scientist should own an EVOS® system:

1. The scope has an ideal footprint that fits into a 4- to 6-foot biosafety cabinet.
2. The scope has an attached monitor, which eliminates the need to cut into the glass of the biosafety cabinet to accommodate the oculars.
3. The attached monitor is ideal for viewing cells in culture without having to take them to a microscope on the bench. Instead, they can go back and forth from the incubator to biosafety cabinet.
4. The scope can remain in the biosafety cabinet, even when the UV light is on, which is required at the end of the day for sterilization.
5. The scope stage has many adaptors to fit a variety of cell culture dishes.
6. The image files captured by the scope can be named easily and stored on a USB drive or in your own folder on a network, since the software can be linked to any server.
7. The fluorescent (FL) scope does not need to be in a dark room to examine the fluorescent images.
8. The price is reasonable.

For all of these reasons and more, I love my scope!

[Learn why Rupa and so many others love the EVOS® Cell Imaging Systems](#)

# Technical highlights

## New Stem Cell Webinars portal

For over a decade, we have provided you with key resources to address challenges in stem cell research. Now, we offer a collection of webinars on selected topics in stem cell research and analysis to help you extend your knowledge and move forward in your research. Our webinars are technology-focused and span all steps of your stem cell workflow. All recorded webinars are free and available in one convenient location.

[Access the Stem Cell Webinars portal](#)

## Reprogramming CD34<sup>+</sup> cells into iPSCs? We have the tools for you.

We have developed two protocols for reprogramming CD34<sup>+</sup> cells into induced pluripotent stem cells (iPSCs) using our off-the-shelf kits. Both protocols have been developed for feeder-dependent and feeder-free iPSC cultures. Kits referenced for successful CD34<sup>+</sup> cell reprogramming include:

- **StemPro<sup>®</sup> CD34<sup>+</sup> Cell Kit**—pooled human hematopoietic progenitor cells (HPCs) derived from the umbilical cord blood of mixed donors are supplied in  $0.5 \times 10^6$  cells/vial with 500 mL of our StemPro<sup>®</sup>-34 SFM
- **Epi5<sup>™</sup> Episomal iPSC Reprogramming Kit**—contains an optimized mixture of five vectors that can reprogram somatic cells to iPSCs without integration

[View the protocol for the Epi5<sup>™</sup> Episomal iPSC Reprogramming Kit](#)

- **CytoTune<sup>®</sup>-iPS 2.0 Sendai Reprogramming Kit**—a nonintegrating virus-based kit that requires only one overnight incubation (compared to multiple days of transductions required for mRNA reprogramming) and yields 2-fold higher reprogramming efficiencies

[View the protocol for the CytoTune<sup>®</sup>-iPS 2.0 Sendai Reprogramming Kit](#)

Find out more at [lifetechnologies.com/stemcellintel](http://lifetechnologies.com/stemcellintel)



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\*Terms and conditions apply. For complete details, please speak to a Life Technologies representative at booth #829.

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