Straight talk from … **Anna Veiga**

Despite the restrictions and controversy confronting stem cell research, labs around the world continue to derive new human embryonic stem cell lines and make them available to the global research community. The EU-funded Human Embryonic Stem Cell Registry (hESCreg) seeks to bring order to the growing number of available stem cell lines and the flood of related data, beginning with the cell lines created in European labs. The web-based registry, launched in January 2008 and accessible at www.hescreg.eu, aims to serve as a one-stop source of information about the origins and traits of these cell lines. Anna Veiga, the hESCreg scientific coordinator and director of the stem cell bank at the Centre of Regenerative Medicine in Barcelona, talks with Doug Sipp about how the project was conceived and where it might lead.

Why launch a human embryonic stem cell registry, and why now?

At present, there is no similar resource for this kind of information on the many types of human embryonic stem cells now available, other than the registry run by the US National Institutes of Health (NIH). And the NIH registry only includes lines derived before the Bush administration's 2001 cutoff date. So we saw a real need for a European registry and made a proposal in the second call under the Sixth Framework Programme, the primary research funding program of the EU.

There is still quite a bit of diversity among EU countries in terms of human embryonic stem cell research policy. I, along with Joeri Borstalp, the technical coordinator of hESCreg from the Berlin-Brandenburg Centre for Regenerative Therapies, think there is interest not only among scientists, but also among the various funding agencies and the lay public, as well, to find out how many lines are available and how they are being used.

What are the main functions of hESCreg?

Basically, the idea is to provide as much information as possible about as many cell lines as we can include, and to make it easy to access and search online. That means including not just details about specific characteristics of the cell lines, but also information on the provenance of a particular line and the methodology used to establish and maintain it.

What do you see as the benefits to the scientific community?

For scientists working with or interested in working with human embryonic stem cells, I think this will fill a void. At present there is no single location where one can access so much information about so many embryonic stem cell lines. We also provide contact information for the provider of every cell line and lists of projects in which the cells are currently being used—which may be useful for researchers seeking collaborations.

It is also possible for scientists to register information about the conditions under which their cell lines were derived, such as informed consent and institutional review board approval. This documentation is potentially important for scientists working in states or institutions that require such information prior to approving a line for use in experiments.

We are also developing a system to show the extent and quality of the information provided for any given line. This may take the form of a rating system that indicates whether, for example, tests have been performed to show that the cells express a certain set of marker genes [that validate them as stem cells]. The details of this rating system remain under discussion.

The database currently includes 176 lines, nearly all of which are research-grade. Where were these lines established?

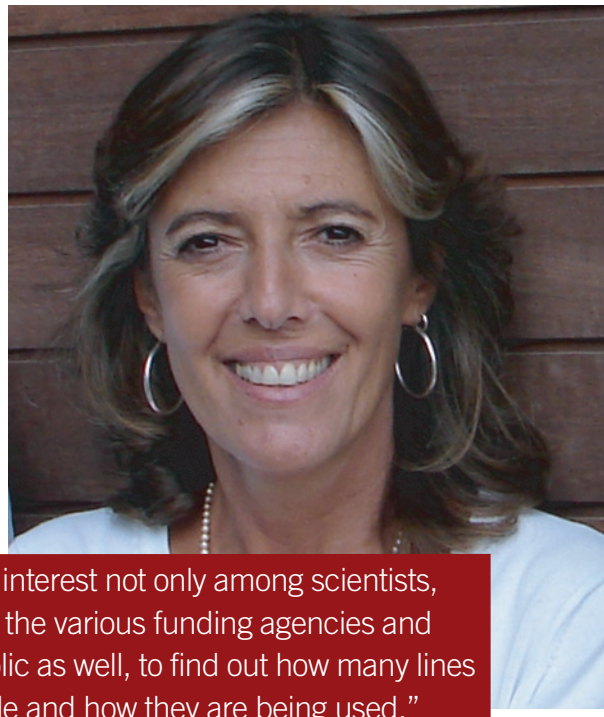
The majority of the lines currently registered were derived in EU member nations, such as the UK, Sweden, Belgium and Spain. But there are a few lines from the US actually being used in European research projects. I should emphasize that we list lines derived by both academic and industry labs.

As an example, Cellartis, a company based in Sweden, has already registered a large number of their lines. The only criteria we have for registering a line right now is that it is available for use, not necessarily free of charge.

How did the funding process work for the registry?

Actually, the registry idea emerged from two separate proposals developed for the first call [for funding applications] under the Sixth Framework Programme.

It was funded when we merged the two proposals in the second call [for such plans], receiving €1 million ($1.47 million) to cover all development and meeting costs for the first three years, starting in March 2007. And we were very happy to learn that the European Commission will consider the possibility of making another call to extend the funding if the registry proves useful in its first term.



"[T]here is interest not only among scientists, but among the various funding agencies and the lay public as well, to find out how many lines are available and how they are being used."

Are there plans to expand in the future?

In the first stage, we will be seeking to have human embryonic stem cell providers whose lines are available in the EU register these lines with us. In the future, we hope to expand this to encompass human embryonic stem cell lines anywhere in the world.

Our scientific advisory board and steering committee have also discussed the question of including information about other types of non-embryonic pluripotent cells, such as induced pluripotent stem cells, which are created by the insertion of specific genes, and spermatogonial stem cells. It was agreed that we will need to address such lines in the future, perhaps by establishing ties to other consortia that deal directly with these cell types.

Doug Sipp heads the office for science communications and international affairs at the RIKEN Center for Developmental Biology in Kobe, Japan, and serves as chairman of the international committee of the International Society for Stem Cell Research.