



**Supply and demand.** Demand for the newly approved cell lines is expected to skyrocket.

## STEM CELLS

## NIH Approves First New Lines; Many More on the Way

At long last, federally funded stem cell researchers will soon have the access to human embryonic stem (ES) cell lines that they have been hankering for over the past 8 years.

Last week, the National Institutes of Health (NIH) named the first 13 lines approved for federal funding under President Barack Obama's revised policy—11 derived at Harvard University and two at Rockefeller University. NIH Director Francis Collins was expected shortly to approve 27 more; a further 68 are awaiting review. At a 2 December press conference, Collins said NIH expects submissions soon for at least 100 more. Thirty-one research grants, totaling \$21 million, have been on hold pending the official availability of the cell lines.

Last March, Obama announced he was deep-sixing the Bush Administration's stem cell policy, which limited federally funded researchers to 21 cell lines. Scientists had worried that, under exacting new requirements for informed consent by embryo donors, most of those 21 lines wouldn't make the grade. But NIH has fashioned a two-tiered vetting process that allows some flexibility in considering lines generated before 7 July 2009—the date the NIH guidelines were finalized—as well as lines from other countries where the informed-consent procedures may vary slightly.

CREDITS (TOP TO BOTTOM): DARREN HAUCK/GETTY IMAGES; ESO/L. CALCADA

But that doesn't mean NIH isn't being extremely fastidious about the process. At a 4 December meeting of NIH's Advisory Committee to the Director, its working group for human ES cell eligibility recommended that Collins approve 27 lines derived at Harvard. Harvard had submitted 28 lines for approval, but one line came from an embryo whose donors signed a consent form during a 7-month period when approval for the form by Harvard's Institutional Review Board had lapsed. Harvard researchers decided it was kosher given that the same consent form was

used before, during, and after the lapse. But the working group decided to reject that line. The approval process must be “beyond reproach,” said working group chair Jeffrey Botkin, a pediatrician at the University of Utah School of Medicine in Salt Lake City.

Another issue is whether NIH should, in addition to vetting cells for funding eligibility, define restrictions on their use. Botkin pointed out that the “anonymization process” for donors means that there's no way to check whether they approve all the uses to which scientists put their genetic material. Participants decided that all cell populations from the 27 lines should be used only for purposes spelled out in the consent form: “to study the embryonic development of endoderm with a focus on pancreatic formation.” Collins said NIH would establish a policy for how to handle such issues in the future.

Researchers holding sought-after lines must now figure out how to deal with the time and expense involved in distributing them. Ali Brivanlou of Rockefeller University in New York City said last week that he had already received about 50 requests for his lines, which he uses to study brain development. “We generated hundreds of independent tubes for each line,” so they'll have plenty to give away, he says. George Daley of Harvard Medical School in Boston, who so far has received requests from more than a dozen investigators, says it's not going to be easy to satisfy the demand: “Our plan is to get the cells into the hands of a bank that will distribute over the long haul.”

At the meeting, Collins said that “if it turns out this is a real barrier,” NIH is prepared to consider setting up such a repository. “I would certainly welcome that,” says Brivanlou. “It would take the burden of distribution and quality control to a central location, and there's no better place than NIH for that.”

—CONSTANCE HOLDEN

### From Science's Online Daily News Site

#### Lose Genes, Gain Weight

Obesity is a disease of excess, but a new study suggests that a few obese patients are actually lacking something—a piece of one of their chromosomes. The loss might remove a gene that helps the body manage blood sugar and appetite. <http://bit.ly/cmvpappetite>

#### Why Your Older Brother Didn't Share

If you watch enough television, you'll witness what psychologists describe as birth order stereotypes. Take Alex P. Keaton of the 1980s U.S. sitcom *Family Ties*. Firstborn Alex was far more brash and competitive than his younger sisters, reading *The Wall Street Journal* while in high school, for example. Now scientists report that the stereotype is valid: Eldest children are less cooperative, trusting, and reciprocating than their siblings. <http://bit.ly/olderbrother>

#### An Introduction to Monkey Grammar?

It's not quite Shakespearean wordplay, but a species of African monkey can modify individual warning calls to produce novel meanings, according to new research. And because the wild monkeys tack the same sound onto the end of their calls, the authors speculate that they could resemble suffixes. But it's debatable whether the sounds serve a grammatical purpose like that in human language. <http://bit.ly/monkeygrammar>



#### The Quasar That Built a Galaxy

Which came first, the quasar or the galaxy? Astronomers have long believed that young galaxies feed the black holes at their centers until those black holes become quasars, which are incredibly massive and powerful sources of energy. But scientists have now found a quasar that's apparently churning out new stars in the absence of a host galaxy. The discovery suggests that quasars created at least some galaxies, not the other way around. <http://bit.ly/galaxybuilder>

Read the full postings, comments, and more on [scienow.sciencemag.org](http://scienow.sciencemag.org).