

Senators Denounce Scientist's Stem Cell Claims

Confusion Over Harm to Embryos In Study at Issue

By Rick Weiss
Washington Post Staff Writer
Thursday, September 7, 2006; A04

Two senators who strongly support human embryonic stem cell research lashed out yesterday at the scientist who recently reported the creation of those cells by a method that does not require the destruction of embryos, saying the scientist and his company have harmed the struggling field by overstating their results.

"It's a big black eye if scientists are making false and inaccurate representations," a combative Sen. Arlen Specter (R-Pa.) said during a hearing of the Senate Appropriations labor, health and human services subcommittee, which he chairs.

Robert Lanza of Advanced Cell Technology (ACT) in Worcester, Mass., defended his work and the company's statements. "Our paper is 100 percent correct," said the visibly shaken scientist, referring to the highly publicized article that appeared in the Aug. 24 issue of the journal *Nature*. "You're on the ropes!" Specter retorted, capping one of several exchanges in which he and Sen. Tom Harkin (D-Iowa), a fellow advocate of stem cell research, repeatedly interrupted and scolded Lanza.

At issue was the initial publicity and resulting media coverage of ACT's widely reported experiment, which showed that a single cell taken from a human embryo can be coaxed to become a colony of stem cells.

Embryonic stem cells are prized for their medical and research potential, and until Lanza's experiment they had been grown only by methods that necessitated the destruction of an embryo. Because the removal of a single cell from an early embryo is widely regarded as harmless (hundreds of apparently healthy children began as fertility clinic embryos that first had a cell or two removed for testing purposes), ACT characterized the technique as a way to make stem cells without destroying embryos.

But opponents of the research, most prominently representatives of the Roman Catholic Church, quickly attacked that claim as bordering on fraudulent. They noted that, in ACT's experiments, the scientists destroyed the embryos to get as many single cells as possible to work with. While that fact was clear in the *Nature* report, it was less than clear to some members of the media and the public.

Specter and Harkin focused on what they said was the main reason for the confusion: the company's news release, which said the team had derived stem cells "using an approach that does not harm embryos."

The approach -- removing single cells -- may be harmless when only one cell is removed, the senators agreed. But in this case, it *did* harm embryos because the scientists, wanting to make the most of the few embryos donated for the work, took many cells from each.

Similarly, the release quoted Lanza as saying: "We have demonstrated, for the first time, that human embryonic stem cells can be generated without interfering with the embryo's potential for life."

Harkin said: "ACT should have made it more clear from the beginning that none of the embryos survived." He added that he suspected the wording was intentionally misleading to raise the company's long-suffering stock price. The stem cell field, he said, has "been hyped too much. We need to come back to Earth."

But Ronald M. Green, a Dartmouth University ethicist who was among several who approved the experimental protocol, told the senators they were wrong to belittle the findings or the way they were reported.

"We're speaking here of an enormous breakthrough in American medicine," said Green, who said his only financial link to the company was the approximately \$200 per day he was paid -- more than a year ago -- for attending a handful of meetings to review the research.

Not addressed by the senators was a plainly incorrect announcement sent to science reporters by the journal *Nature* itself.

"By plucking single cells from human embryos, Robert Lanza and his colleagues have been able to generate new lines of cultured human embryonic stem (ES) cells while leaving the embryos intact," the release said.

That erroneous description -- written not by scientists at *Nature* but by the journal's lay staff -- was corrected after news stories were published.

Nature later apologized to reporters, blaming the mistake on "internal communication problems." Lanza and the senators agreed on one thing: The quickest way to boost the availability of stem cells for research would be to pass legislation like that recently vetoed by President Bush, which would allow scientists with federal funding to study embryos about to be discarded by fertility clinics.