

Stem Cell Outreach

Among the audience members at Dominican University of California's Stem Cell conference on Feb. 9, Philip Economon stood out – both for his enthusiasm, and his age.

Economon, 90, of Corte Madera, is a World War II veteran and a retired assistant commissioner for Marin County's Department of Agriculture. Since 1993, he's been an active docent with the Buck Institute for Age Research in Novato.

"I work out one and three-quarter hours at the YMCA every day," Economon said. "I want to see how this body will keep up."

"I feel like our bodies, we don't know too much about them," he said. "Many older people feel like they want to quit. I can't see that."

Economon was at the conference so he could learn even more. "I want to know as much as possible about what our researchers are doing," he said. "This field is so complicated."

Scientists wanting to engage in stem cell research have an unprecedented role in educating the public about this recent, confusing and controversial phenomenon. In an age in which science is increasingly politicized, and in which the Internet has made more information available to average people than ever before, scientists want to make sure the facts get out.

Having public forums like the one at Dominican, which community members like Economon can attend for free and hear from top researchers, is a start.

It's also part of the mission of the California Institute of Regenerative Medicine, which the voters of the state authorized with a \$3 billion ballot measure in 2004. Because of CIRM's unique genesis, it remains accountable to the state's citizens, and actively tries to get the word out about stem cells.

"We love to have the opportunity to share with you, the public, what it is that we are about and what it is that we are doing," said Dr. Gilberto R. Sambrano, PhD, the senior officer in charge of peer review for the California Institute for Regenerative Medicine, and the head of its training grant program.

Sambrano said the mass media has often supplied misinformation to the public. A slide demonstrated the most notable talking points: Headlines declaring, "Elvis was cloned in 1976 – duplicate Kings are roaming all over," and photos of George Bush, John Kerry, Michael J. Fox, Dolly the sheep, and stem cells on the cover of Time magazine.

"It's a challenge to grasp the promise of stem cell research," Sambrano said. "We want to remove the extraneous things and tell you why scientists are excited about stem cell research."

One path to increased understanding would be improved science education in the schools, according to Dr. Renee Reijo Pera, professor and director of the Center for Human Embryonic Stem Cell Research and Education within the Stanford Institute for Stem Cell Biology and Regenerative Medicine in the Department of Obstetrics and Gynecology at Stanford University School of Medicine.

"We need to educate differently," Reijo Pera said. "I was not a good science student in high school. Science was not interesting. We need to make science more interesting."

The questions addressed in stem cell research get to fundamental issues of human life, she said. “They bring us into the realm of who we are,” she said. It shouldn’t be hard to grab the attention of high school students. After all, she said, “high school students are very interested in eggs and sperm.”

The education is critical, she said, in a world in which the issues get painted as black and white, and people are pitted against each other.

“We need to heal,” she said. “We have the ability to work together.”

Even as the media may hype some of the controversies and scary aspects of stem cell technology, such as cloning, it’s equally guilty of over-selling the promise of stem cells, according to Dr. Mary Devereaux, PhD, a bioethicist in the Research Ethics Program at the University of California, San Diego.

“The media likes to say stem cell research will solve everything,” she said. “But it will have some significant medical hurdles and ethical issues.

“There’s a huge amount of promise,” she said. “That’s what everybody likes to talk about. But the public needs to know that there are scientific hurdles that are considerable.”

At the same time, scientists in the field need to make sure they’ve thought through all of the ethical implications, to avoid trouble. “The research community needs to be up to speed with the human, legal and ethical questions,” Devereaux said.

But don’t researchers want to be in the lab, working, one woman asked, instead of trying to teach people about why they should get funding? Isn’t that someone else’s sales pitch to make?

“In this field, you don’t have that luxury,” Devereaux said. “It’s part of this field. Scientists have to be part of that national conversation. It is very fundamental, what we’re doing. It involves cloning, stem cells, basic biological information. I’m not going to let you off the hook. You have to participate in this.”

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