

## Battle Heats Up Over Cloning

The countdown to next month's expected vote in the U.S. Senate over human cloning began in earnest last week with dueling press conferences and a congressional hearing.

Two measures are under consideration. One, sponsored by Senators Sam Brownback (R-KS) and Mary Landrieu (D-LA), resembles the bill passed last summer by the House in outlawing not only reproductive cloning but also somatic cell nuclear transfer, or "therapeutic cloning," as well as the importation of therapies based on cloning. The other bill, sponsored by Senators Edward Kennedy (D-MA) and Dianne Feinstein (D-CA), would outlaw



Senators Feinstein and Kennedy greet Reeve.

reproductive cloning but allow research on nuclear transfer.

The vote may be a close one. Brownback's bill has attracted not only conservatives but left-wing "progressives" such as Norman Mailer and biologist Ruth Hubbard. Senate Majority Leader Tom Daschle (D-SD) declared himself

to be "very uncomfortable" with therapeutic cloning even before an anticloning TV campaign opened in his state late last month. A radio campaign in Utah urges influential Senator Orrin Hatch (R-UT) to "say no to embryo hatcheries."

The other side is trotting out celebrities such as actor Christopher Reeve, paralyzed by a riding accident, and Hollywood producer Jerry Zucker, whose daughter has diabetes. It's also stepping up the rhetoric. Kennedy predicted that more research will allow officials "to empty three-fourths of the nursing home beds in Massachusetts." Stanford University Nobel laureate Paul

Berg warned that Americans' "health is being held hostage" by the anticloners.

Unfortunately for researchers, the heat over cloning has caused the issue to become conflated with embryonic stem cell research in general. Indeed, Senator Arlen Specter (R-PA), who strongly supports therapeutic cloning, further muddled the waters by predicting that passage of the Brownback bill will rob the country of "the benefits of stem cells" and cause "the exportation of scientists in droves to countries that are not going back into the Dark Ages."

## Evolution Champion

Eugenie Scott, a tireless battler against the forces of darkness on the evolution front, has been chosen for this year's Public Service Award by the National Science Board.

Scott

Scott, a physical anthropologist, has for 15 years been the executive director of the National Center for Science Education, based at the University of California, Berkeley. The award "highlights the importance of scientists taking the anti-evolution movement seriously," she says. "We need to realize that we have to be in this for the long haul."

The board, which oversees the National Science Foundation, is giving its institutional Public Service Award to the Society for Advancement of Chicanos and Native Americans in Science. Formed in 1972, the society has grown into what the board calls the "premier organization that promotes diversity in science."



Visitor to Glasgow Science Center experiences three-dimensional p53 molecule binding with DNA.

chance to share existing applications—such as a virtual walk through the international space station—with the public. The network was launched at the Glasgow Science Centre in Scotland.

Six science museums can now send their visitors on trips to the cutting edge of research as part of a Virtual Science Network launched last week by Silicon Graphics (SGI).

## Museums of the Future

So far, only six museums in the world have "immersive" theaters with curved screens where visitors using a mouse or joystick and 3D goggles can be transported to environments ranging from the inside of the body to the bottom of the sea. Now they will also be able to access and share material that hitherto has been available only to researchers, says Afshad Mistri of SGI. For example, Dieter Isakeit of the European Space Agency says the network gives ESA the

chance to share existing applications—such as a virtual walk through the international space station—with the public. The network was launched at the Glasgow Science Centre in Scotland.

## Call From Home

Turning 30 without friends and family can be traumatic. But birthday wishes from home always help—particularly when home is 11.9 billion kilometers away. That's what NASA controllers did on 2 March for Pioneer 10, which is so far from Earth that it took 22 hours for the signal to reach the spacecraft.

The signal marked the 30th anniversary of Pioneer's launch. It

was the first humanmade object to take closeup images of Jupiter



Pioneer rounding Jupiter.

(shown here), pass beyond the asteroid belt, and leave the solar system. The plucky senior spacecraft is now 80 times farther away than the distance between Earth and the sun, and long-lived nuclear generators enable it to keep transmitting a tiny signal picked up by NASA's Deep Space Network. It's now headed toward Aldebaran, the eye in the constellation Taurus. But that leg of the journey won't be complete until the spacecraft's 2 millionth birthday.