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OTA REPORT

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WASHINGTON, D.C.—Representative Robert Kastenmeier (D-WI) reintroduced in March two bills from 1988 addressing transgenic animal issues—one calls for restrictions on the applicability of patents to farm animal use, and the other asks for a new federal regulatory regime for all transgenic animals. He also released the fifth in a series of biotechnology reports from the congressional Office of Technology Assessment (OTA), "New Developments in Biotechnology: Patenting Life."

The need for such legislation is hotly debated: Representatives of the biotechnology community claim it is unwarranted, but social critics demand its enactment. Kastenmeier is seeking to protect farmers from escalating costs, and says that the "most difficult issue" is determining "when the activity of the farmer effectively competes with commercialization activities of the patent owner."

"Because a patented life form ...poses unique legal questions about the scope of patent protection, it is essential...to avoid making ordinary, routine noncompetitive reproduction of a patented animal an act of patent infringement," he says. If the matter cannot be resolved, Kastenmeier cautions, researchers who are developing transgenic animals "will likely face renewed calls for a moratorium."

The debate about animal patenting has touched on commercial and ethical questions, and advocates on both sides are using the OTA report as support for their positions. "In our opinion, the OTA report in no way justifies legislation restricting animal patenting," says Richard Godown, president of the Industrial Biotechnology Association (Washington, DC). The OTA report supports the position that "patents are the life-blood of [the biotechnology] industry." Jeremy Rifkin of the Foundation on Economic Trends (Washington, DC) reads the report differently, however, arguing that it "raises seri-ous questions" and that "a moratorium on animal patenting is essential."

"Ethical claims for and against the patenting of animals have been raised," says Kevin O'Connor, study director for the OTA report. "We found that most arguments—both for

and against the patenting of animals—center on issues that existed prior to the current patenting of life debate."

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The current debate over the patenting of organisms heated up last year when Harvard Medical School (Boston, MA) researchers were granted a patent for mammals, including mice, that carry certain oncogenes making them particularly susceptible to cancer (*Bio/Technology* 6:638, June '88). Although the Harvard patent is the only one for a transgenic animal yet issued anywhere, over 40 animal patent applications are pending in the U.S.

OTA predicts that most early animal patenting activity will reflect interest in species useful for research, with later efforts focusing on agriculturally important species, including cattle, swine, goats, sheep, poultry, and fish. All such efforts pose a formidable administrative challenge to inventors and PTO—namely, determining what standards can reasonably be established to properly describe living "inventions."

-Jeffrey L. Fox

