

tions written by EPA. A 16 percent decrease in acceptable blood levels translates into a larger change in air regulations, large enough to threaten lead sales. Thus the industry has begun to go after CDC health advisories as well as EPA regulations.

In the first months of the Reagan Administration, the EPA tentatively proposed removing all controls on leaded gasoline. Doctors and public health officials protested loudly, so that EPA reversed course and began to impose stricter controls instead. Assistant EPA Administrator Cannon told the Senate committee on 22 June: "We had envisioned that with our tougher . . . standard, leaded gasoline would quickly recede from the marketplace and virtually

disappear by the early 1990's. But the practice of misfueling, using leaded gasoline in vehicles designed for unleaded, is occurring at an alarming rate." Misfueling destroys catalytic converters and is thought to have increased emissions from affected cars by 800 percent.

As a result of this new pollution and because the danger to health is becoming clearer each year, Cannon said the EPA has drafted a new rule to speed up the removal of lead from all gasoline. It is to be unveiled "within the next few weeks." An exception will be allowed for pre-1971 cars and heavy-duty trucks, which may require very lightly leaded gasoline to prevent valve damage. A recent analysis by the EPA staff showed that the benefits of removing lead would

outweigh the costs. Cannon promised that the new rule will be moving toward implementation by the end of the year. The EPA does not need the new legislative mandate, he said.

Noting that many promises have been made and forgotten in the long history of lead control, Senator Durenberger said he hoped that "the new tiger down at EPA will . . . get the lead out of our tanks." But, he concluded, "I haven't seen the regulation; I know the hurdles it faces when it does come out; and I remember too well his [the tiger's] predecessors." For that reason, Durenberger will try to attach the leaded gasoline prohibition to some piece of vital legislation before Congress adjourns.

—ELIOT MARSHALL

## Two Fertilized Eggs Stir Global Furor

The case of the frozen zygotes in Australia has recently triggered a public debate covering issues raised by artificial insemination and surrogate mothering as well as in vitro fertilization, according to some observers.

The story, in brief, concerns a couple from Los Angeles, Mario and Elsa Rios, who flew to Melbourne in 1981 to seek the services of the Queen Victoria Medical Clinic's fertility program. There, doctors extracted and fertilized three of the woman's ova and implanted one, which resulted in a miscarriage. The couple departed, leaving the remaining two fertilized eggs which were frozen in liquid nitrogen. In 1983, the Rioses were killed in a plane crash. The story suddenly gained international prominence after London newspapers reported that the couple had left no will and a substantial fortune was at stake.

The zygotes are probably no longer viable because methods of preservation were considerably more primitive in 1981 than they are today, experts say. But feverish debates have arisen over the disposition of the two microscopic blastulae—whether they should be implanted in someone, and what inheritance rights they may possess. The center has been deluged by women who want to be impregnated. The premier of Victoria meanwhile has established a committee to ascertain the legal rights of the frozen embryos. The Rioses' lawyer, Laura Horwitch, has announced she will ask the Los Angeles Superior Court to determine their legal status. That issue has been further complicated by her assertion that the sperm used in the procedure was not the husband's.

According to a leading center for in vitro fertilization in this country, such a preposterous situation could not arise in the United States because of universally accepted guidelines governing the disposition of unused fertilized eggs. Also, very few places freeze the eggs, which otherwise survive only a few hours. Howard Jones, director of the Institute for Reproductive Medicine at Eastern Virginia Medical School, says guidelines promulgated by the American Fertility Society specify that cryopreservation should not be sustained beyond the reproductive life of the mother. Furthermore, if fertilized eggs are frozen, their disposi-

tion, if unused, has to be decided prior to the procedure. They can either be thrown out, used for research up to the age of 14 days, or offered for adoption, in which case anonymity is required. Any subsequent claim to the progeny by the biological parents would be waived.

Although these principles would seem to cover the ground, the problem, according to Alexander Capron, former head of the President's ethics commission, is that they have not been sanctioned either by law or by society. Nor do they address future procedures that science will be making available.

Capron says the Rios case may turn out to be a "beacon"—like the Karen Quinlan case—signaling that "we have a lot of problems to deal with here" in the whole area of fertility manipulation. One issue relates to the rights of children who want to know the identity of their biological or (in the case of surrogate mothering) gestational parents. Clinics generally try to make identification of donors impossible by mixing sperm from more than one and by destroying records. This issue will also be arising where donated sperm has been used for in vitro fertilization.

As for the legal and moral status of zygotes, Capron notes that contracts are "naïve" because they "only work if society legitimates them." He is sharply critical of the Department of Health and Human Services for shying away from the subject of in vitro fertilization, despite the fact that an ethics advisory board over 5 years ago recommended such research and called the procedure "ethically defensible."

But what is really needed, he says, is a new presidential commission and hearings to arrive at a public consensus on parentage and the disposition of the results of conception, which would supply the basis for much-needed legal guidance.

In vitro fertilization is now being practiced in about 200 clinics around the world. The Victoria group does around 400 a year. Successful pregnancies result in approximately 20 percent of the cases. So far, at least 450 babies have been produced, one of them from a frozen zygote.

—CONSTANCE HOLDEN