Board backs test-tube baby research

Research involving fertilization of human ova in the laboratory is "ethically acceptable" according to a report released last week by an advisory board to the Department of Health, Education and Welfare. This conclusion, one of a set of recommendations to go to HEW Secretary Joseph A. Califano Jr., gives an ethical, at least, nod of approval to ending the department's four-year moratorium on funding so-called "test-tube baby" research. The 14-member Ethics Advisory Board stressed, however, that the questions of whether to fund such research and what priority or level of funding it should receive should be decided by the department in the "larger context" of scientific, political, legal and other considerations.

The board was created by the same order that halted HEW funding of *in vitro* fertilization experiments in 1975. Under the leadership of San Francisco attorney James Gaither, it first met last May to consider the ethical acceptability of fertilization research proposed by Vanderbilt University's Pierre Soupart. With the birth of Louise Brown, the first "test-tube baby," Califano requested a broader set of recommendations (SN: 9/23/78, p. 212). After a series of public hearings and solicited reports, the group recommended that HEW support animal *in vitro* fertilization work (SN: 2/17/79, p. 101). Such experiments—in animals and humans — are being developed by some facilities that receive private funding (SN: 12/9/78, p. 407). This, however, is the first action toward once again providing federal support — and, consequently, larger sums of money — for such projects. Meanwhile, Califano's final decision and the fate of Soupart's proposal are awaited.

The board also concluded that:

- Experiments involving human *in vitro* fertilization without transfer of the embryo to a woman's uterus can only be done to obtain scientific information unattainable by other means. In addition, the consent of the fully informed individuals involved is required and no embryos can be kept in the laboratory more than 14 days after fertilization.
- Experiments involving embryo transfer as well as *in vitro* fertilization must meet the same conditions but can use only the sperm and eggs of married couples.
- The National Institute of Child Health and Human Development and other agencies should provide public information on both animal and human research on *in vitro* fertilization and embryo transfer. The legal status of children born by such means should be clarified by law. □

NIH on electronic fetal monitoring

Electronic fetal monitoring, which consists of using electronic instruments to monitor a fetus's well-being (heart rate) during birth, has zoomed in use during the 1970s. Nearly 65 percent of all U.S. fetuses are now so monitored. There has also been, from the mid 1960s to the present, an impressive decline in perinatal deaths, suggesting that electronic monitoring may have helped save many fetal lives.

During the past several years, on the other hand, the safety of internal electronic fetal monitoring — the kind that requires placing a catheter in the mother's womb or electrodes on the fetus's scalp, in contrast to external monitoring from outside the mother's abdomen — has been called into question. Such monitoring has been reported to lead, in certain instances, to serious infections of, or serious damage to, the fetus. There is also a question of whether routine electronic fetal monitoring is cost-effective, even though such monitoring is a minor part of ever-staggering hospital costs. And there is the question of whether electronic fetal monitoring interferes with the psychological aspects of childbirth that are of great importance to mother and child.

To answer such questions the National Institute of Child Health and Human Development commissioned Frederick P. Zuspan, chairman of obstetrics at Ohio State University College of Medicine in Columbus, and 13 other perinatal specialists to examine all available scientific data on both the positive and negative aspects of electronic fetal monitoring and to come up with recommendations on when it should be used. This "Task Force on Predictors of Fetal Distress" reached its conclusions on March 6, during a three-day NICHHD conference on antenatal diagnosis. Here, in essence, are its recommendations:

Electronic fetal monitoring should be seriously considered for high-risk mothers and fetuses (mothers with medical complications during pregnancy or fetuses born prematurely or postmaturely), since scientific studies suggest that they can benefit from electronic monitoring. Electronic fetal monitoring should not be necessary for most low-risk mothers and fetuses, because there is no evidence that such monitoring benefits their health. Instead, the obstetrician can listen to the fetus's heart rate with a stethoscope during labor — the method that was used exclusively before electronic monitoring became available. But whether obstetricians depend on electronic fetal monitoring or on a stethoscope, they should be aware that abnormal fetal heart rate patterns do not always mean that a fetus is in distress — that is, is not getting enough oxygen during labor contractions. Thus, if electronic fetal monitoring suggests that a fetus is in distress, an obstetrician should confirm the findings with other clinical and lab techniques before deciding to deliver a fetus by cesarean section — a method that carries certain risks in its own right.

As for the cost-effectiveness of electronic fetal monitoring, more studies into the pros and cons of the technique must be conducted before it can be accurately assessed. And although limited research has been done on the effects of electronic fetal monitoring on the psyche of women in labor, available data suggest that it is not detrimental as long as it is properly used and explained to patients by knowledgeable, supportive medical personnel. Yet if women do not want such monitoring, their wishes should be respected. □

Siting nuclear wastes hobbled by geology

The final report of a 14-agency federal review group on nuclear-waste management, issued last week, places greater stress than a draft version did on resolving certain vital geochemical uncertainties. The 45-day comment period that followed the draft's unveiling last October brought 3,300 responses, three-quarters from private individuals. This final document, containing some 40 significant changes, will go to President Jimmy Carter next month along with a decision paper.

The revised report no longer finds technical and scientific knowledge of geological sites "adequate to proceed with regional selection and site characterization," but only "adequate to identify potential repository sites for further investigation." Whether high-level wastes can be disposed of safely "can only be assessed on the basis of specific investigations at and determinations of suitability of particular sites," the report says.

It also says that unless interim-storage sites for wastes awaiting permanent disposal are ready "significantly prior" to the final facilities, there is no need for any. The impact this analysis may have on the President's decision on whether or how to proceed with the already controversial Waste Isolation Pilot Plant near Carlsbad, N.M., is already fueling controversy. Approximately $40 million has been spent on WIPP and another $55 million is requested in the new budget. But unless the interim-storage center is upgraded to become the site of a future permanent disposal facility, its priority and funding may decrease substantially.

The report also recommends involving states and federal siting teams in a consultation process instead of granting each state veto rights on waste sites proposed within its boundary. A proposed 18-member state council made of elected officials and presidential appointees would be involved in siting and design plans. □