**THE ETHICS OF THE WALVAX-2 CELL STRAIN**

**Background:**

The WI-38 and MRC-5 cell strains are currently used in the production of human viral vaccines (MMR, Chickenpox, Hepatitis-A, Shingles, some rabies, and some polio vaccines). But since these cell lines are approaching the end of their ability to self-replicate, a group of Chinese vaccine researchers, Bo Ma et al, have developed a new (human diploid) cell strain, Walvax-2. And just as in the 1960s Leonard Hayflick (WI-38) and JP Jacobs (MRC-5) derived their respective cell substrates from 2-4 month-old electively aborted lung fetal tissue, so Bo Ma et al. in 2015 derived their cell strain from the lung fibroblast tissue of a three month-old electively aborted fetus. The research report of Bo Ma and his Chinese colleagues concludes: Because Walvax-2 cells replicated more rapidly than MRC-5 cells, attained the same degree of confluence in 48 hours as was reached by MRC-5 cells in 72 hours, and attained 58 passages of cell doublings over 48 passages with MRC-5 cells, the Walvax-2 cell banks are a promising cell substrate and could potentially be used for the manufacturing of human diploid cell vaccines.

Live-attenuated viral vaccines such as MMR-II, chickenpox, rabies, hepatitis-A, and herpes are produced in four stages:

(1) Cell culture preparation: development of cell lines appropriate for manufacturing vaccines or human use.

(2) Virus inoculation and propagation: the addition of the virus to the cell culture which is allowed to replicate.

(3) Virus harvest: retrieval of the virus from the medium

(4) Purification: further processing of the virus for later incorporation into the finished vaccine.

While it is clear that Bo Ma et al derived Walvax-2 strain from electively aborted fetal tissue, NCER could not verify whether the source for any of their viral strains (rabies, chickenpox and hepatitis-A) were also from aborted fetal tissue. Henry Plotkin, who devoted his life to rubella (German measles) research, isolated the rubella virus from the kidney of a fetus electively aborted during the U.S. rubella outbreak in the mid-1960s. Plotkin then grew that rubella virus in Hayflick’s cell substrate, WI-38, which was also derived from aborted fetal tissue. Hence, both the virus and the cell strain for the rubella vaccine came from electively aborted fetal tissue.

**NCER raises the following ethical objections to the research used to produce the Walvax-2 cell strain for potential use in manufacturing viral vaccines.**

(1) **Questionable complicity between the doctors who performed the abortion and vaccine researchers who benefited from obtaining freshly aborted fetal lung fibroblast tissue.** Ethicists have universally insisted that, in the development of viral vaccines from aborted fetal tissue, there should be no collusion between the woman who has decided to abort her baby (and, by extension, the doctors doing the abortion) and the researchers. The mother must have made her decision to abort before she is asked whether she wants to donate fetal tissue for research purposes. It appears this was done in the Walvax-2 research.

By extension, the involved physicians performing the abortion should not deviate from the normal method of aborting the fetus (in the case of a three month fetus, a D&C) just so they might provide “optimal fetal tissue” for the vaccine researchers. But this is what the doctors did in aborting the 3-month old female fetus whose tissue eventually proved to produce the best diploid cell strain out of the batch of 9 aborted fetuses for the Walvax-2 cell substrate. They employed a special means of induction (the water bag method) so they or someone they delegated, could deliver to Bo Ma et al intact fetal cadavers with fresh organs which would facilitate, in turn, the ready harvest of the needed fetal fibroblast lung tissue from which they developed the human diploid cell strain conducive to the growth of the respective viruses (rabies, hepatitis-A and varicella [chicken-pox]).

(2) **Failure to use alternative cell strains that would obviate the intentional destruction of human beings.** The FDA has approved two alternative cell strains derived from human and non-human tumorigenic tissue, neither of which is implicated in destruction of human beings. And the FDA still licenses vaccines (mumps and measles vaccine) that are produced from cell substrates taken from chick embryos. Using these alternative sources for viral vaccine would help to expose the error of now commonly accepted populist notions: (1) using vaccine cell substrates from aborted fetal tissue in some way “redeems” destruction of innocent human life or (2) aborted fetal tissue is the only source from which viral vaccines can be produced. The Pontifical Academy for Life notes that individuals (doctors and parents) and institutions of good will (such as NCER) ought to conscientiously object to human viral vaccines that have been immorally derived (including any that might be manufactured from the Walvax-2 cell strain). To do anything less is to force doctors/parents to choose between two equally untenable options: to act against their conscience or not to provide for the good of their children and the people with whom they come in contact. ***NCER therefore encourages researchers to develop human viral vaccines whose cell substrates and viruses are derived from animal sources or from human sources other than aborted fetal tissue.*** Currently the FDA has approved tumor cell lines as substrates for therapeutic vaccines and is exploring their use for prophylactic vaccines.