

Pre Implantation Genetic Screening and Selection (PIGSS)

Biotechnology and the Church in 2011

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There is a near and present danger to the Catholic Church. It comes in the name of a new biotechnology entitled *Pre Implantation Genetic Screening and Selection (PIGSS)*. The staff and membership of the National Catholic Bioethics Center regard this among the greatest dangers to the Church's moral teaching, legal independence, institutions (hospitals, school, and churches), clergy, and economic viability.

The seriousness of this issue of Pre Implantation Genetic Screening and Selection is virtually unrecognized today among the members of the Catholic Hierarchy, as was the issue of embryonic stem cell research in 2003. In fact, only 5% of all those attending the recent National Catholic Bioethics Meeting in Dallas knew its definition and its moral, economic, and legal ramifications.

Pre-Implantation Genetic Screening and Selection, (PIGSS) is the screening and pre-selection of embryos before implantation in the uterus through in vitro fertilization technology, so that the optimal embryo might be selected or genetically enhanced. It is anticipated that it will be combined with Eugenics (alteration of genes to maximize or insert genetic traits, i.e. intelligence and physical traits).

- Why is PIGSS such a near and present danger?
- How does PIGSS differ from issues of embryonic stem cell utilization and cloning?
- Why is PIGSS a devastating danger to the Church's moral teaching and the integrity of Church institutions and clergy?
- What could we (should we) be doing now?

Why is PIGSS a near and present danger?

Pre Implantation Genetic Selection involves a present viable technology that will be extensively promoted and encouraged through popular emotional appeal, that is immensely economical profitable, and whose intellectual property is patentable in the USA. PIGSS is currently a viable biotechnology already in use since 1982, at first used to enable individuals with dominant genetic disorders, such as Huntington's chorea, to have normal children of their own. However noble its original intent, presently it is most commonly used for determining the sex of an embryo and the selection of desirable children. In a recent national survey, a significant number of American women said that they would freely use abortion as a means of selecting the gender of the child to whom they would desire to give birth (*gender selective abortion*).

Available technology enables genome identification, that is, identifying a gene in an embryo that predisposes an individual to a particular disease or disability, such as breast cancer, colon cancer, Alzheimer's, and heart disease. Once Eugenics becomes safely feasible (and this will be only in a brief matter of time) the possibilities will very likely reach Orwellian proportions for parents to produce a perfect child and for social engineers to promote a "super race." The biotechnology or "intellectual property" is patentable according to current US law. Potentially billions of dollars are at stake for biotech firms that already are feverishly jockeying for their own share in the trillion dollar business of human creation.

What is at stake are the unforeseen consequences of this new technology. Governmental mandates very well could require that every non-implanted embryo first be pre-genetically determined before implantation into the uterus, so as to minimize future disease and the cost of medical care (especially long term medical care) for individuals born with genetic defects, diseases, or disabilities. Potential parents who themselves carry defective genes could be subjected by governmental mandate to a process of pre genetic selection before being permitted to conceive a child or carry it to full term. Unlikely? The precedent to do this is already being prepared and the legal protocols and the long term planning for effecting this are already being discussed. And children born with disabling genetic defects could over time sue their parents for "wrongful life," similar to a doctor being sued for "wrongful death" in a malpractice suit; neither should have been permitted to happen. Unlikely? It has already happened.

How does PIGSS differ from issues of embryonic stem cell utilization and cloning?

PIGSS differs from the Embryonic Stem Cell Research and Cloning Act of 2004 in that PIGSS is already a proven, feasible and safe technology. Like embryonic stem cell research it is driven by biotechnology companies that have billions of dollars already invested. Embryonic stem cell research, however, was (and still is) an unproven technology that was (and still is) highly dangerous, and that is faced with many legal hurdles because of its immunological and teritogenic (cancer producing) aspects. This is why seven years after Proposition 71 was passed it still has not resulted in a single treatment. It is a fact that embryonic stem cell research was known by the majority of the 82 Noble Laureates and prominent scientists who backed the 2004 initiative to be "too dangerous a technology to pursue". Despite these facts the initiative overwhelmingly passed; 62% of Catholics voted for it. On the contrary, *PIGGS is a viable technology without the same immunological or teritogenic problems, and at present there are no significant legal hurdles to be faced. Moreover, it is emotionally appealing.* Who would not like to save another person from a lifetime of serious disability, suffering, or disease by simply precluding the birth in the first place?

Why is PIGSS a danger to the Church's moral teaching, institutions, clergy, legal integrity, and continuing financial viability?

PIGSS, like embryonic stem cell and cloning research, interferes with the natural order and makes man the creator. It impugns the inherent value of life at its very core. It further creates a new type of human; let's name it the *gennew*, as distinct from the *genold*. Prior to this, all humans differed only in morphological characteristics, such as color. However, all genetic, physical and intellectual capacities have always been similar for human beings. With PIGSS and eugenics this will no longer be true. There will actually be a difference between those enhanced as a result of pre implantation genetic screening and selection and eugenic manipulation those not so enhanced.

Regarding the legal status of PIGSS, the law and ethics paper written by Donrich Jordaan, referenced below, clearly defines how PIGSS and eugenics will be ethically, politically, and legally sold to the public. First, all parents will have to be informed that this technology is available to their offspring, as is done presently for those who chose amniocentesis. Those parents who chose not to "correct" or enhance their children may give cause to liability ("wrongful life" suits) and perhaps even criminal prosecution. Wrongful life suits have been recognized in California since 1992 and recently have been rejudicated. This may give rise to the prosecution of those individuals and institutions (see *Prejudice Society*) who might advise against Pre Implantation Genetic Selection and Eugenics. The Hierarchy of the Catholic Church and its institutions (hospitals, schools, and churches) might well become targets. Already there is precedence for this in Canada, England, and the United States.

How will PIGSS be presented in order to secure the support of the Catholic Faithful?

In his article Jordaan refers to the "best interest principle". What action is in the best interest of the individual? Simply put, if we place so high a value on the health, education, nutrition of our children after birth, why should they be denied that same attention prior to birth while still in the embryonic stage. Why not minimize their dangers to breast cancer, colon cancer, Alzheimer's disease and others. This argument appeals not only to the mind but to the emotions as well, and it must be seriously countered.

If we do not heed past history, will we simply repeat it?

The proponents of Proposition 71 raised \$38 million to only \$750 thousand raised by those who opposed it, including the Catholic dioceses and institutions of California. The ability of the proponents to convey a science that was, in fact, dangerous and unproven, succeeded not by arguments, but through economic strength, control of the media, and emotional appeal. *The proponents were prepared and we were not.*

Pre Implantation Genetic Screening and Selection differs from Embryonic Stem Cell and Cloning Research in two important aspects -- it is feasible at present safe and it will be immensely profitable economically. Their arguments, however, are severely flawed –

morally, ethically, and pragmatically. As a Church, we and our collaborators have the ability to fight PIGSS for what it is, simply eugenics for profit with disregard for its dangers. In California, we need to address this issue because the main biotech industry is here in this state, and we will certainly be the first state in which it will be tested.

What could we (should we) be doing now?

Organize and educate.

- We should be educating ourselves as bishops, clergy, and lay and religious leaders, knowing the issue, the science, and the terminology involved
- We should be alert in following the discussion and monitoring potential legislative initiatives
- We should be raising awareness among our clergy and faithful about the facts and dangers associated with this issue
- We should be teaching our clergy and faithful now, rather than later, so that they will clearly understand what is at stake when legislation is produced and be ready to support what is right and oppose what is wrong when legal initiatives are proposed
- We should begin immediately to formulate our arguments and strategies in opposition to PIGSS and countering the emotional appeal that will be used in promoting it

- We could initiate the debate in a variety of venues over PIGSS and eugenics, focusing attention on the issues of genetic selection and manipulation
- We could organize an ethics “think tank” related to PIGSS and eugenics
- We could organize and formulate a public relations bureau in order to begin a statewide campaign of educating the general voter population
- We could organize an ecumenical medical conference inviting dialogue on this issue with leaders and members of other denominations and religions
- We could seek legislation to prevent abuse of this technology and to guarantee legal conscientious objection and the protection of rights should PIGSS be passed into law

The argument and strategies for PGSS are clearly delineated in the article “Preimplantation Genetic Screening and Selection: An Ethical Analysis,” by Donrich W. Jordaan, **Biotechnology Law Report**, Volume 22, Number 6 (December 2003), 586-601.