

# Recent Scientific Developments in the Light of Scripture

*by Gary VanderSchaaf*

Test-tube babies, genetic engineering, and prenatal adoption, once the stuff of science fiction scenerios, have become scientific and cultural reality. The birth of the world's first test-tube baby in August, 1978, warns us that Aldous Huxley's *Brave New World* may yet be upon us.

We are children of Christ, and we are parents and teachers of Christ's children, who together look forward indeed to a new and glorious world. What are we to think, how are we to act in the face of the recent breakthroughs in the field of eugenics? We must think and act now, lest we undiscerningly incorporate into our denominational ethos the attractive, apparently beneficial opportunities and alternatives presented by the "new genetics", as we have so many technological advances in the past. In truth, the day is dawning on a Brave New World. But whose world will it be?

The *Oxford English Dictionary* defines "eugenics" as that science "pertaining to the production of fine offspring, especially in the human race." The two fields of eugenics to be considered in this article are in vitro fertilization (literally, "in glass" fertilization, the result of which is a test-tube baby) and recombinant DNA research, popularly known as genetic engineering.

The benefits of such eugenic studies and the societal and cultural changes necessary before these benefits can be realized were outlined in 1971 by Dr. H. Bentley Glass, then president of the American Association for the Advancement of Science. Dr. Glass' remarks are produced here at length because they pertain directly to this paper's topics, and because these comments reflect the majority opinion of the American scientific community.

In the new, far more regulated society of man which will inevitably be forced upon us by our exponential increase, the present genetic types of man may not all permit a happy adjustment. The nature and personality of

man must change too...The once sacred rights of man must alter in many ways. Thus, it can no longer be affirmed that the right of the man and woman to reproduce as they see fit is inviolate...the right that must become paramount is not the right to procreate, but rather the right of every child to be born with a sound physical and mental constitution, based on a sound genotype (genetic makeup, G.V.S.). No parents will in that future time have the right to burden society with a malformed or mentally incompetent child...1

Glass continues, describing how this right might be enforced.

Unlimited access to state regulated abortion will combine with the now perfected techniques of determining chromosome abnormalities in the developing fetus to rid us of the several percentages of all births that today represent uncontrollable defects such as mongolism, Turner's Syndrome, and hemophilia. Genetic clinics will be constructed in which, before long, as many as 100 different hereditary defects can be detected in the carriers, who may be warned or prohibited from having offspring.2

Referring specifically to *in vitro* fertilization, Glass predicts:

The embryos produced in the laboratory might come from selected genotypes both male and female. Sex determination of the embryos is possible...and embryos with abnormal chromosome constitutions can be discarded.3

Glass concludes with the results of such a eugenics program.

In the future age of man it will become possible for every person to procreate with assurance that the child, either one's own or one prenatally adopted, has a sound genetic heritage, capable of fully utilizing the opportunities provided by society for optimal development. As man acquires more fully the power to control his own genotype and to direct the course of his own evolution, he must produce a man who can transcend his present nature.4

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Let us more closely examine *in vitro* fertilization; its procedures, promises, and implications, implicit and explicit. Very simply, the procedure involves first of all the removal of five to eight mature eggs, or ova, from the donor's ovaries. These eggs are placed in a petri dish containing the very complex liquid medium necessary to sustain the ova. The eggs are then fertilized with spermatozoa from the donor's husband. Finally, after two to three days of laboratory development, one fertilized egg is chosen for its singular fitness and implanted in the donor's uterus.\* The remaining fertilized eggs are discarded or "squashed" and stained for microscopic study.

This is certainly a major medical achievement. Ten percent of American women are infertile; of this 10%, 3% suffer from

blocked fallopian tubes which prevent fertilization of the egg. Corrective surgery for this malady is successful only 25% of the time. Therefore, when *in vitro* fertilization becomes routine, many couples will have a new chance to have their own children.

Fertile women will be able to take advantage of this procedure as well. For example, the eggs of a young woman are healthier than those of an older woman. The development of "egg banks" similar to today's sperm banks would make possible an "early deposit—late withdrawal" plan whereby young ova could be stored and years later be fertilized and implanted into older women, thus reducing the risks of a deformed or retarded child which increase with age.

Furthermore, *in vitro* fertilization will in time allow for surrogate motherhood, or "womb rental". If a couple should desire their own child but, for any number of reasons, the woman does not want to suffer the inconveniences and discomforts of pregnancy, a proxy mother could be found. For a fee, this woman would rent her womb for nine months to the laboratory conceived, surgically implanted embryo, and then turn over the infant to its genetic parents at birth. (In 1977, a Detroit lawyer received over 300 affirmative responses to his ad seeking a woman to be artificially inseminated and bear a child for a "needy" couple.) The legal problems of such arrangements are enormous. No one knows what effects such motherhood will have on the woman and child involved. Certainly, however, the term "wet-nurse" will take on new meaning.

Finally, as sexing techniques and means to identify and alter the embryo's genotype are developed and refined, parents, biological or adopting, will be able to shop for the embryo of their desire. Prenatal adoption will be a reality. This is a frightening reality, so cold and technical that even the world is hesitant to accept it. We have seen in the last decade the effect on society of the separation of conception from sex; what will be the effect of removing sex from conception on the already tottering institution of marriage and the family?

Dr. Leon Kass, member of the Committee on the Life Sciences and Social Policy of the National Research Council, writes concerning this separation of conception and intercourse:

A new image of human procreation has been conceived...As one obstetrician said at a recent conference, 'The business of obstetrics is to produce maximum babies.' the price to be paid for the optimum baby is the transfer of procreation from the home to the laboratory and its coincidental transformation into manufacture. The depersonalization of procreation and

its surrender to the demands of the calculating will, will in itself be serious dehumanizing no matter how optimum the product.<sup>5</sup>

Clearly then, the development and application of *in vitro* fertilization raises many questions and presents many problems. There can be no doubt that these are real problems and serious questions; however, such questions and problems are after the fact. It is typical of American science, industry, and society to proceed under the belief that because we *can* do it, we *should* do it. A Christian does not share this belief. The questions remain: is this new procedure in itself scripturally permissible? I think not.

There are two assumptions tendentious to the *in vitro* process and to any experimentation with it. These assumptions we cannot share. The first premise is that a fertilized egg, an embryo, does not constitute a human life. Of the half-dozen or so embryos created in the *in vitro* process, only one is implanted. The rest are destroyed. Steptoe and Edwards admit to creating and destroying over 200 such embryos before their success of last summer. If we believe that life begins at conception, and we do, then Steptoe and Edwards are responsible for the abortion of over 200 souls. If such a thing is possible, this experimental abortion is more heinous than the abortions we are familiar with now; in the *in vitro* process, lives are intentionally manufactured with sure knowledge that most will be discarded. Seen in this light, I should think *in vitro* fertilization would lose its initial appeal to the covenant couple.

The second and more basic premise involved is the idea of man implicit in such research and practice. Evolutionary man is the product of his environment and the expression of his genes. As with any product, defects should be eliminated, and if the defects are the result of the manufacturing process, change the process.

Such reasoning leads theologian Joseph Fletcher to respond to Kass' assertion (that *in vitro* fertilization is dehumanizing) saying:

Laboratory reproduction seems to me to be radically human and personal rather than natural reproduction, which means genetically accidental...Dr. Kass calls artificial reproduction depersonalized. On the contrary, I believe it is a highly personalized form: It is rationally willed, chosen, purposed and controlled, as ordinary reproduction is not. In any case, what is demanded is a **quality** of life ethic to take the place of the traditional Western right of life ethic. The metaphysical presupposition of the sanctity posture (that there is an omnipotent, omniscient God directing the conception and lives of men, G.V.S.) is neither verifiable nor falsifiable.

Moreover, such presuppositions are opposed to empirical humanistic medicine as well as genetic and embryological research.<sup>6</sup>

To the child of God, who knows by grace that his Lord is the all-wise, all-powerful, all-loving Father, the idea that man is a bundle of genetic accidents awaiting remedy is abhorred. This corrupt view of the nature of man is so fundamental to the science of eugenics that we will return to it later.

In close connection with *in vitro* fertilization is genetic engineering. Quite simply, and for the purposes of this article, genetic engineering consists of changing the genetic make-up of a cell or cells in an effort to make the cell produce something—a protein or enzyme—that it could or did not before. It is hoped that through genetic engineering, such disorders as Down's Syndrome, Turner's Syndrome, and Tay Sachs disease may be eliminated, along with hundreds of other disorders of genetic origin.

Admittedly, genetic engineering is in its earliest stages. At this time, such work in the United States is limited by law to experiments with bacteria and viruses. Nevertheless, the promises of this research are great, and the experiments continue apace. In September, 1978, the human bacteria *E. coli* was induced through genetic engineering to produce insulin. This process is quicker, cheaper, and the product is purer than the insulin refined today from cattle and pig pancreases. More such breakthroughs are inevitable.

I can see no objection to research on the present level, and surely we could make use of medicines produced in the new manner described above. However, when genetic engineering, intrauterine diagnosis of genetic abnormalities, and abortion as genetic therapy combine under the rubric of "genetic counseling", I believe the Christian must proceed very carefully.

Granted, there are legitimate uses for genetic counseling. The blood test prior to marriage is an example. I am sure that many covenant couples have taken into prayerful consideration family histories of physical deformity or mental retardation, and I do not believe that a middle-age couple would consider having a child without much soul-searching, and without consulting a physician.

But this is not the genetic counseling that the world has in mind. Recall Dr. Glass's comments at the beginning of this article. For instance, it is possible to determine a fetus' sex. If the fetus is male, and the parents do not wish a male child, the

child may be aborted. Similarly, if one of the hundreds of genetic disorders that can be diagnosed is diagnosed, the parents can have the embryo aborted. (The devil gained a victory when abortions became "therapy". Therapy for whom I cannot imagine—certainly not the baby.) The future of genetic counseling is yet more alarming. Parents with "unfavorable" genotypes will not be allowed to procreate. Embryos with merely undesirable, not necessarily pathogenic, genotypes will be aborted out of hand, simply because they do not meet parental or societal standards. One has a disturbing feeling of *deja vu*: haven't similar programs been tried before? Yes indeed, in Hitler's Germany, and we are familiar with the results of that experiment. Sin continues to develop, and there is no new thing under the sun.

Once again we are brought to those two, basic, humanistic premises. Once more abortion is an integral part of approved procedures, and we are again faced with a corrupt view of man. The projected uses of genetic engineering in genetic counseling is based on the belief that man is merely the end-product of gene expression. Disease and developmental defects are caused by genetic mistakes. Then it is clear that human suffering and finally death are mistakes, and that at bottom we are all mistakes. If we could only make our cells translate messages other than our own, the world could be set aright.<sup>7</sup>

However, we believe that we are known by our God, that He ordered and ordained our lives before we were in the womb. We believe our Lord when He says in Jeremiah 1:5, "Before I formed thee in the belly I knew thee, and before thou camest forth out of the womb I sanctified thee..." We know that we are fearfully and wonderfully made; we reject the idea of man as a collection of genetic inconsistencies in need of man ordained and directed repair.

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We have seen then that these recent scientific developments and their implication, as well as the beliefs that precipitate them, are unscriptural. In discussing such matters with our students—and these matters must be discussed—we should point out that here is false science, that here is the lie. We must emphasize that here is a sign of the times; here is one of the means by which Satan will usher in the kingdom of Anti-Christ. I

believe, that as the end nears, God will allow man to know all about himself, that God will give man up to his sin so that man will finally become the captain of his soul and the master of his fate. Since Eden, man has lusted after godhood, and it will seem to be in his grasp.

C.S. Lewis says this about the power inherent in such godhood:

In reality, if any one age really attains, by eugenics and scientific education, the power to make its descendants what it pleases, all men who live after it are patients of that power...I am only making clear what Man's conquest of Nature really means and especially that final stage in the conquest, which, perhaps, is not far off. The final stage is come when Man by eugenics, by prenatal conditioning, and by an education and propaganda based on a perfect applied psychology, has obtained full control over himself. **Human** nature will be the last part of Nature to surrender to Man. The battle will then be won. We shall have 'taken the thread of life out of the hand of Clotho' and be henceforth free to make our species whatever we wish it to be. The battle will indeed be won. But who, precisely, will have won it?<sup>8</sup>

Indeed, who will have this power? Who will have won the battle? Scripture provides the answer in Revelation 13:11-15:

And I beheld another beast coming up out of the earth; and he had two horns like a lamb, and he spake as a dragon. And he exerciseth all the power of the first beast before him, and causeth the earth and them which dwell therein to worship the first beast, whose deadly wound was healed. And he doeth great wonders, so that he maketh fire come down from heaven on the earth in the sight of men, and deceiveth them that dwell on the earth, that they should make an image to the beast, which had the wound by the sword, and did live. And he had power to give life unto the image of the beast, that the image of the beast should both speak, and cause that as many as would not worship the image of the beast should be killed.

The dragon, the false prophet, is the servant of and source of power for the first beast (described in vs. 1-7). It is not the dragon's task to govern or command, but to make the rule of the first beast appealing to the world through deceptions and "miracles", so that the world will follow the first beast willingly.

And who would not follow? What need of eternal life in heavenly perfection when the science of the dragon can offer virtual immortality in a genetically perfect, disease-free life on a paradise-like earth? Perfect bodies, perfect health, perfect children manufactured to our own desires, just for bending the knee to the image of the beast. An irresistible offer, so tempting but for the grace of God even the elect would be deceived.

Let us not be deceived. It is Christ Who has the victory. Remember that the devil and the beast, with all their molecular

machinations and deceptions will be cast into the lake of fire. For Christ is Lord of lords, and King of kings, and they that are with Him are called and chosen and faithful, even unto the end.

\*At the time of this writing, Patrick Steptoe and Robert Edwards, the two Englishmen responsible for last summer's test-tube baby, have failed to publish the exact procedures involved in their pioneering process. Because of this failure, the American scientific community has withdrawn the honors it originally awarded the secretive pair.

#### *Footnotes*

1Glass, H Bentley. "Science: Endless Horizons or a Golden Age," *Science*, 171: 28 (January 1971).

2Ibid., p. 28.

3Ibid., p. 28.

4Ibid., p. 29.

5Kass, Leon R. "New Beginnings in Life." *The New Genetics and the Future of Man*. Ed. Micheal Hamilton. Grand Rapids: Eerdmans, 1972. Pp. 15-63, at p. 53.

6Fletcher, Joseph. "A Theologian's Response." Ibid., pp. 78-89, at p. 87.

7Kass, op. cit., p. 62.

8Lewis, C.S. *The Abolition of Man*. New York: Macmillan, 1947, pp. 70-72.

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"The goal of the life of the Kingdom is emphatically not 'full-time Kingdom service,' as we used to hear, over and over, in chapel, as if the goal were only reached in preachers and Christian school teachers. This is not Calvinism. This is not covenantal thinking. On the contrary, every child is to live a life of 'full-time Kingdom service,' whether he be scientist, lawyer, or janitor."

*Reformed Education*, p. 86, Rev. David J. Engelsma