

## GENETICS

- Topic: The Engineering and Patenting of Human Genes:  
Anthropological, Moral, and Theological Considerations
- Convener: M. Cathleen Kaveny, University of Notre Dame
- Moderator: Thomas A. Shannon, Worcester Polytechnic Institute
- Presenters: David F. Kelly, Duquesne University  
James J. Walter, Loyola Marymount University

This meeting of the Genetics Research Group focused on the engineering and patenting of human genes. The two papers presented in this session probed the broader human meaning of genetic engineering and patenting by looking at the anthropological, moral, and theological questions these activities raise. The session, which was attended by approximately thirty-five people, provoked a discussion that not only pressed the questions raised in the papers, but expanded to consider other closely related issues in genetics and ethics.

The first presenter, David F. Kelly, concentrated on the anthropological and moral issues of genetic engineering, particularly those raised by gene therapy. He argued that five moral reservations frequently voiced with respect to genetic engineering are not likely to be serious impediments to its eventual implementation. Privacy concerns, worries about equitable access, potential harm to those whose genome is altered, long-term harm to the gene pool, and the possibility that genetic therapy and enhancement will erode respect for those already disabled are not likely to prevent genetic engineering. In short, if the techniques work, they are likely to be utilized.

Kelly argued that two other issues should guide our consideration of the anthropological and moral issues involved in genetic engineering. First, we need to think carefully about how the noneconomic values implicated by genetic engineering could be distorted by turning the human genome into a form of property. How will our understanding of human dignity be altered if we commodify the human genome and filter its meaning through the matrix of patent law? Second, we need to consider whether our fundamental anthropological commitments should lead us to be open or closed to genetic manipulation. He suggested that the role of philosophy and theology in these considerations is not to lead us to direct judgments about the acceptability of genetic manipulation, but to set the anthropological context in which those judgments will be made. Kelly concluded his presentation by discussing similarities and differences in Karl Rahner's two articles on genetic manipulation, "The Experiment with Man," and "The Problem with Genetic Manipulation."

The second presenter, James J. Walter, probed more deeply into the theological realm. He analyzed two issues, human gene transfer (somatic cell therapy and germ line therapy) and the patenting of human genetic material, looking at them through the framework provided by two theological themes, the

sacred status of human genes, and models of divine sovereignty. With respect to the first theme, Walter observed that the biotechnology industry and many spokespersons for religious groups have found themselves at odds about the nature of DNA. The biotechnology industry describes DNA as a mere chemical compound. In contrast, for many religious people, DNA, the building block of life, has come to symbolize life itself. On this view, if life is sacred, DNA must be sacred. The patenting of genetic material, which is morally unproblematic for those who view DNA solely as a chemical compound, becomes highly objectionable to many of those who invest it with a sacral character.

The model of divine sovereignty or ownership that one uses to characterize the relationship between God and humanity also affects one's assessment of genetic engineering and patenting. To those who understand human beings to be pre-owned by a divine King, genetic alteration can be considered an instance of wrongly "playing God." Patenting would also be wrong, because it attempts to transfer ownership of human life from God to human beings themselves. However, on a less rigid divine sovereignty model, God's ownership is best understood as God reserving the right to define the purpose and value of the various elements of creation, as well as their relationship to one another. Human beings may own and use these elements, as long as their doing so is not inconsistent with God's purposes for them. On this view, altering and patenting human genetic material is not in principle unacceptable. In conclusion, Walter warned against genetic reductionism, exceptionalism, and determinism. He also argued that the divine kingship model is outmoded, and unduly circumscribes human freedom. In his view, theological warrants cannot be used to rule out genetic engineering or patenting in principle. However, in practice, there may be serious moral grounds to object to specific aspects of their implementation (e.g., germ line enhancement).

The ensuing discussion focused on such topics as the meaning of "sacred," the role of stewardship and cocreation in genetics, and the overwhelming influence of the market in the genetics industry.

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