



Online Ethics Center  
FOR ENGINEERING AND SCIENCE

# Patenting Genes and Life

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## Description

This problem was given to students as part of a [course on problem based learning \(PBL\) using fractious problems](#). It asked them to consider the value of patents involving human genes. Students were asked to apply six skills in analyzing and devising policy resolutions for the problems and to apply PBL skills in doing so.

## Body

### Problem 2A

Patents are property rights created by national governments. Patents grant inventors the right, for a limited period of time, to exclude others from using, selling, or distributing the patent holder's invention without permission—typically, in the form of a license in exchange for a fee to the patent holder. The chief policy justifications for issuing patents are: (1) they promote investment in research and development to the benefit of the public by ensuring that inventors can reap the fruits of their labors, and (2) because inventors are required to disclose detailed information about their inventions in exchange for the issuance of patents, patents benefit the public by encouraging the flow of potentially useful information during the term of the patent and the production and sale of less expensive versions of the

invention after the conclusion of the patent term.

Many ethical and policy controversies surround the issuing of certain patents, including patents involving human genes. These concerns include whether these patents are, on-balance, of benefit to the public given their potential effects on research and on the costs of and access to diagnostic tests and treatments. Concerns also surround the creation of property rights in parts of human beings.

Prepare findings, analysis, and recommendations regarding patents involving human genes.

- Should these patents be issued?
- If so, under what conditions?

## Notes

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## Resource Type

Case Study / Scenario

## Parent Collection

Problem Based Learning (PBL) Fractious Problem Case Assignments

## Topics

Intellectual Property and Patents

## Discipline(s)

Life and Environmental Sciences  
Research Ethics