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“Trade Secrets and Patents in Biotechnology”

by

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ABSTRACT

Biotechnology projects are typically uncertain endeavors. More than other innovations, they tend to rely on techniques that may lead to significant discoveries, even though they may not be considered to be such at an intermediate stage of research and development. Trade secrets and patents, therefore, tend to coexist to a larger extent than in other sectors, while, at the same time intellectual property rights (IPR) may be more difficult to protect due to the more complex and intangible nature of intermediate products. In this paper, we examine the costs and the benefits of the two methods of IPR protection, from the point of view of the individual innovator and society. We assume that imitation constitutes an option in the hands of a third party, that can be exercised at a cost depending on the technology. This cost, however, may be increased by costly enhancing the degree of trade secrecy and/or by protecting the innovation through a patent. Under these conditions, we prove that, in general, there is an optimal social level of trade secrecy and of patent protection.

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