



Patents: Protecting Inventors and the Public Good

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"In a world in which science is a rich-country prerogative while the poor continue to die, the niceties of intellectual property rights are likely to prove less compelling than social realities."
—Jeffrey Sachs, economist and director of the Earth Institute at Columbia University¹

Every year U.S. companies charge thousands of dollars for lifesaving drugs that seemingly cost pennies to produce.² Not only is this practice legal, it is defended by our Constitution. The "Patent Clause" (article I, section 8, clause 8) grants intellectual property rights, called patents, to individuals or businesses that create a new product or process. Currently, most patents protect inventors for 17 to 20 years.

Patent rights serve as an incentive for private individuals and firms to develop new products and technological innovations that ultimately provide an overall economic benefit to society. In exchange for investing significant resources, patent rights give the developer monopoly control over its newly created good for a specified period. During this period the company (or individual) can set a high price on the new good and potentially reap a substantial financial reward for risking its time, money, and development efforts. Once the property rights expire, however, society ultimately benefits as the good or process may be priced much lower and therefore widely consumed. Generic drugs are one example.

Without the incentive of a large financial reward ("positive economic profits"), many argue that the innovative good or process would probably have never been created. Thus, its overall benefit to society would never be realized. The large short-term profits for inventors, therefore, are a trade-off so that society may reap a long-term gain.

Patents grant property rights to goods and processes ranging from children's toys to computer technology, but the property rights assigned to lifesaving drugs are perhaps the most intensely debated. One such debate, in 2001, was even prompted by the U.S. government. During the anthrax scare after the September 11 attacks at the World Trade Center, the U.S. government [considered rescinding the patent rights](#) granted to Bayer for its creation of the trade-name drug Cipro. Cipro is used for protection after exposure to anthrax. Rescinding Bayer's patent rights would have allowed the government to acquire a larger supply of Cipro at a much-reduced price in the short run. However, it could have reduced long-run confidence in the security of patent rights, thus discouraging drug manufacturers from continuing to invest in the discovery of other lifesaving drugs. Given these concerns, the Cipro patent was left intact.³ However, the internationally publicized consideration of patent invalidation by the United States prompted World Trade Organization delegates to sign an agreement later that year allowing member countries to [rescind patent protections for the benefit of public health](#). U.S. drug manufacturers continue to [have difficulty enforcing their patent rights](#) in several foreign countries today.

It is widely argued that the benefits of the patent system have, to date, outweighed the costs. The financial incentive to create new and useful goods has provided advances in numerous fields, including those aimed at protecting and extending human life. However, in an age of bioterrorism and with the ability to better moderate global disease, some fear that the desire to ease human suffering today will begin to outweigh support for inventors' rights in the future. The question is whether rejecting those rights will mean sacrificing the most important discoveries of tomorrow.

—By Lesli S. Ott, Senior Research Associate

¹ From "[Helping the World's Poorest](#)" (*The Economist*, August 12, 1999); link provided by the Center for International Development at Harvard University.

² The marginal cost of manufacturing each pill is pennies on the dollar, but the average research and development costs to create a successful drug are estimated to exceed [\\$800 million](#) (see Chap. 1, p. 2).

³ It also helped that, in the face of possibly losing its patent, Bayer eventually agreed to provide Cipro to the U.S. government at [half price](#).

Additional Articles on Patents for Medical Innovations

[“Cipro and the Risks of Violating Pharmaceutical Patents,”](#) by Frank R. Lichtenberg, National Center for Policy Analysis, Brief Analysis, No. 380, November 15, 2001.

This article discusses how violating patents for pharmaceuticals could negatively affect the future development of new drugs.

[“Scrooge and Intellectual Property Rights,”](#) by Joseph E. Stiglitz, BMJ.com (*British Medical Journal* website) #333, 2006.

This report promotes using a medical prize fund in lieu of pharmaceutical patents as an incentive for drug development.

[“What DNA, Patents and Lady Gaga Have in Common,”](#) by David Ewing Duncan, CNNMoney.com, *Fortune*, March 17, 2010.

This article gives a brief overview of the recent controversy surrounding the patenting of human genes.

Free Data Sources and Reports

Data: General Information Concerning Patents
Description: Links to answers of general questions regarding U.S. patents.
Published by: United States Patent and Trademark Office
Location: <http://www.uspto.gov/web/offices/pac/doc/general>

Data: Understanding the WTO: The Agreements—Intellectual Property: Protection and Enforcement
Description: The WTO’s Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) was negotiated in the 1986-94 Uruguay Round. It introduced intellectual property rules into the multilateral trading system for the first time.
Published by: World Trade Organization
Location: http://www.wto.org/english/thewto_e/whatis_e/tif_e/agrm7_e.htm

Data: Pharmaceutical R&D and the Evolving Market for Prescription Drugs
Description: This report by the Congressional Budget Office describes the current state of investment in drug research and development and the factors that influence it.
Published by: Congressional Budget Office (Economic and Budget Issue Brief, October 26, 2009)
Location: <http://www.cbo.gov/ftpdocs/106xx/doc10681/10-26-DrugR&D.pdf>

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