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Patents that kill

The patent system encourages pharmaceuticals to pump out drugs aimed at those who have no chance of survival

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IN 1742 Benjamin Franklin invented a new type of stove, for which he was offered a patent. Franklin refused it, arguing in his autobiography that because “we enjoy[ed] great advantages from the inventions of others, we should be glad of an opportunity to serve others by any invention of ours.”

Most inventors are not as generous as the “Newton of Electricity”: they want to turn their inventions into a profit. The patent system, which was developed independently in 15th century Venice and then in 17th century England, gave entrepreneurs a monopoly to sell their inventions for a number of years. Yet by the 1860s the patent system came under attack, including from *The Economist*. Patents, critics argued, stifled future creativity by allowing inventors to rest on their laurels. [Recent economic research](#) backs this up.

The pharmaceutical industry makes the best case for patents (and makes the most of patents when they are approved. Medical research and development (R&D) is costly. Moreover, although a patent application must be filed straight after a drug discovery, clinical trials necessary for drug approval may take years. This

shortens the effective life of the patent. As three economists argue in a recent [paper](#) this causes problems. In order to prove the efficacy of a drug, pharmaceuticals have to match the length of a clinical trial to the expected survival time of the patients. A clinical trial for patients with metastatic prostate cancer lasts only three years compared to an 18-year-long trial for those suffering from a milder, localised prostate cancer. Since a typical patent is in force for 20 years, firms only have two years of effective patent length left to commercialise a new drug against localised prostate cancer.

The data paint a bleak picture. The economists find that pharmaceutical companies conduct 30 times more clinical trials for recurrent cancer drugs than for preventive drugs (the effect persists even after adjusting for market size). The authors also show that firms divert their R&D expenditures away from more curable, localised cancers and focus on incurable metastatic and recurrent cancers instead. The patent system encourages pharmaceuticals to pump out drugs aimed at those who have almost no chance of surviving the cancer anyway. This patent distortion costs the U.S. economy around \$89 billion a year in lost lives.

A one-size-fits-all patent system does not cater to the specifics of innovation in the pharmaceutical industry. But tailoring patent law may encourage lobbying and corruption. A careful [reform of the patent system is necessary](#): outright abolition of patents will not be enough to save cancer patients' lives.

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