

## Preventing Patent Purgatory

Author: Beardsley, Timothy M.

Source: BioScience, 58(10) : 907

Published By: American Institute of Biological Sciences

URL: <https://doi.org/10.1641/B581001>

---

BioOne Complete ([complete.BioOne.org](https://complete.BioOne.org)) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at [www.bioone.org/terms-of-use](https://www.bioone.org/terms-of-use).

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

---

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

## PUBLISHER

Richard T. O'Grady

## EDITOR IN CHIEF

Timothy M. Beardsley

## SENIOR EDITOR

Donna Daniels Verdier

## PRODUCTION MANAGER / ART DIRECTOR

Herman Marshall

## PEER REVIEW / EXTERNAL RELATIONS

Jennifer A. Williams

## MANUSCRIPT EDITOR

Laura C. Sullivan

**Editors:** Eye on Education: Cathy Lundmark (educationoffice@aibs.org); Feature articles: Cathy Lundmark (features@aibs.org); Washington Watch: Robert E. Gropp (publicpolicy@aibs.org).

**Editorial Board:** Agriculture: Sonny Ramaswamy; Animal Behavior: Janice Moore; Animal Development: Paula Mabee; Botany: Kathleen Donohue; Cell Biology: Randy Wayne; Ecology: Scott Collins, Daniel Simberloff; Ecotoxicology: Judith S. Weis; Education: Gordon E. Uno; Environmental Policy: Gordon Brown, J. Michael Scott; Evolutionary Biology: James Mallet; Genetics and Evolution: Martin Tracey; History and Philosophy: Richard M. Burian; Invertebrate Biology: Kirk Fitzhugh; Landscape Ecology: Monica Turner; Microbiology: Edna S. Kaneshiro; Molecular Biology: David Hillis; Molecular Evolution and Genomics: David Rand; Neurobiology: Cole Gilbert; Plant Development: Cynthia S. Jones; Policy Forum: Eric A. Fischer; Population Biology: Ben Pierce; Professional Biologist: Jean Wyld; Sensing and Computation: Geoffrey M. Henebry; Statistics: Kent E. Holsinger; Vertebrate Biology: Harvey B. Lillywhite.

**Editorial Correspondence:** 1444 I Street, NW, Suite 200, Washington, DC 20005; telephone: 202-628-1500; fax: 202-628-1509; e-mail: bioscience@aibs.org. Instructions for preparing a manuscript for *BioScience* can be found at [www.aibs.org/bioscience/resources/Info\\_for\\_contribs.pdf](http://www.aibs.org/bioscience/resources/Info_for_contribs.pdf).

**Advertising:** For display advertisements, contact John Rasanen; telephone: 703-379-2480, ext. 224; fax: 703-379-7563; e-mail: jr@agweb.org. For classified advertisements, contact Jennifer A. Williams; telephone: 202-628-1500, ext. 209; fax: 202-628-1509; e-mail: jwilliams@aibs.org.

*BioScience* (ISSN 0006-3568) is published monthly except July/August combined by the American Institute of Biological Sciences. To subscribe, call 1-800-992-2427, ext. 29. Individual membership: sustaining, \$90/yr; individual, \$70/yr; family, \$90/yr (includes \$36 for *BioScience*); emeritus, \$50/yr; K-12 teacher/administrator, \$45/yr (includes \$22 for *BioScience*); graduate and postdoctoral students, \$40/yr (includes \$21 for *BioScience*); undergraduate and K-12 students, \$20/yr (includes \$15 for *BioScience*); lifetime, \$1400 (one-time fee). Institutional subscriptions: domestic, \$367/yr; foreign, \$440/yr. Single copies: \$14 plus shipping and handling for up to 20 copies; volume discounts available for more than 20 (call 1-800-992-2427, ext. 29). Subscription renewal month is shown in the four-digit year-month code in the upper right corner of the mailing label.

© 2008 American Institute of Biological Sciences. All rights reserved. Periodical postage paid at Washington, DC, and additional mailing offices.

**POSTMASTER:** Send address changes to *BioScience* Circulation, AIBS, 1313 Dolley Madison Blvd., Suite 402, McLean, VA 22101. Printed in USA. AIBS authorizes photocopying for internal or personal use, provided the appropriate fee is paid directly to the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923; telephone: 978-750-8400; fax: 978-750-4744; Web site: [www.copyright.com](http://www.copyright.com). To photocopy articles for classroom use, request authorization, subject to conditions thereof, from the Academic Permissions Service at CCC. Each copy must say "© [year] by the American Institute of Biological Sciences." Statements and opinions expressed in *BioScience* are those of the author(s) and do not necessarily reflect the official positions of the American Institute of Biological Sciences, the editors, the publisher, or the institutions with which the authors are affiliated. The editors, publisher, and AIBS disclaim any responsibility or liability for such material.

# BioScience

Organisms from Molecules to the Environment  
American Institute of Biological Sciences

## Preventing Patent Purgatory

The idea of a state license that allows an inventor to prevent others from copying an invention for a fixed period—otherwise known as a patent—has seemed a sensible one to enlightened governments since the 15th century. The public benefits by having the details of the invention disclosed, and the inventor's right to profit from the invention is preserved. But times have changed since the rulers of Venice issued the first such documents.

Today the international patent system is a nightmarish mire of broad yet uncertain rights. Wealthy corporations purchase patent rights they have little intention of exploiting to impress investors and discourage competitors. The main business of some patent "trolls" is threatening purported patent infringers with legal actions, which can be hugely expensive to settle. Devising ways to extend the lifetimes of patents drives pharmaceutical research agendas. Inventors in poor countries feel they cannot play such high-stakes legal games, and academic biotechnology researchers commonly ignore patents—thus exposing themselves to legal jeopardy.

Biomedical researchers are likely to be familiar with the perils of the increasingly complex patent system: the US National Research Council warned in 2006 of mounting difficulties for genomics and proteomics researchers who exchange research materials. As molecular technologies become more widespread, organismal and agricultural biologists too will most likely have to learn about licensing fees, profit-sharing agreements, and legal restraints on permissible research.

In September, an international expert group on biotechnology, innovation, and intellectual property, funded by the Canadian government, added its voice to calls for radical overhaul. The expert group, consisting chiefly of US and Canadian academics but with input from researchers around the globe, issued the results of its seven-year study, conducted from McGill University. The report is sobering reading: It documents failures of the patent system that have impeded biotechnology, and argues that it is "simply far from clear what effects patents actually have on levels of inventiveness and dissemination." Definitions of what is patentable have been stretched to the point of absurdity—in the United States, the report notes, methods for devising tax shelters can be patented.

The expert group notes that the US Supreme Court and governments in Europe have in recent years begun to moderate patent rights, but it calls for governments to adopt a more inclusive approach, one that addresses innovation broadly and allows for information to be more widely disseminated. It also proposes new institutions aimed at building trust between originators and potential users of biotechnology inventions; the goal is to increase sharing (which was, after all, part of the original justification for patents). The expert group has established an institution of its own, the Innovation Partnership ([www.theinnovationpartnership.org](http://www.theinnovationpartnership.org)) to start things moving.

Given the powerful interests vested in the current system, change will not be easy—indeed, earlier this year the US Senate abandoned its modest reform efforts. But the expert group does offer ideas that could, if adopted, make an end run around the patent trolls. The beneficiaries would be researchers and users of biotechnology in rich and poor countries alike.

TIMOTHY M. BEARDSLEY  
Editor in Chief

doi:10.1641/B581001  
Include this information when citing this material.