## Intellectual property and public health

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It is appropriate that this issue of the Bulletin coincides with the report of the WHO Commission on Intellectual Property and Innovation in Health (CIPIH).1 Developing health technologies for the world's poor people increasingly requires the wise management of intellectual property (IP), and the papers in this issue all treat IP as a strategic asset. Vaccines, DNA patenting, and the innovative potential of a large research consortium are the focus of three papers; the promise of royalty collection clearing houses and patent pools is explored in the fourth, and two papers explain how the global IP system can be used to jump-start health technology innovation in developing countries.

All the papers address the growth of product development public-private partnerships (PDPs), such as the Malaria Vaccine Initiative. Seeking to promote the development of new health technologies for developing countries, these non-profit organizations have led to a reassessment of the IP role in making health products available to the poor. Before PDPs, critics contended that IP allowed private pharmaceutical firms to dominate markets, perpetuating high prices and excluding the poor from critical health technologies. In short, IP was considered bad for people's health. However, as Chokshi et al.,2 Milstein & Kaddar3 and Dutfield<sup>W4</sup> illustrate, we now know that creatively managing IP can both facilitate access to health solutions and speed the development of products.

New research shows that misuse or waste of IP slows the development of new health technologies for developing countries. IP is an essential tool for helping to ensure the safety and efficacy of new products and for creating markets and delivering medicines at affordable prices. Fortunately, thanks to new funding from donors such as the Bill and Melinda Gates Foundation, the United States National Institutes of Health, European donors and some developing countries, the public sector has more resources to maximize its strategic use of IP systems.

Van Zimmeren et al. W5 examine an issue of much current interest: the extent to which patent pools, single licensing authorities, royalty collection authorities and other such cooperative ventures can facilitate product development. According to the authors, it is unclear whether these mechanisms can be set up easily and administered efficiently: it may be better for each party to seek to protect the interests of the public sector rather than establishing new, potentially cumbersome and expensive schemes.

The papers by Winters W6 and Musungu<sup>W7</sup> call for various international mechanisms to assess and monitor the impact of IP on research and development (R&D) and health in developing countries. These would be extremely valuable advances, although the assessment protocols need a more solid intellectual foundation. Such support could be found in the expanding field of innovation studies, which has recently enhanced our understanding of product innovation in the health sector. Shaped by many forces, the complex structure of innovation may make it difficult to segregate out the specific impacts of IP on the various issues that Musungu identifies. In addition to IP, other factors affecting health innovation are the development and promotion of domestic and international markets, R&D support, the establishment of manufacturing capabilities to meet the needs of the poor, and effective regulatory systems for safety and efficacy.

The emergence of innovative developing countries (IDCs) such as Brazil, China, and India is also affecting global health innovation. These countries and others like them will certainly make significant contributions to biomedical R&D in the near future. A major unresolved question, however, is whether their innovations will benefit the poor within their own borders and in other less well-off countries. Identifying innovation strategies and IP management policies and practices that will help to ensure that their investments in R&D benefit the poor is a pressing task. W8

In December 2005, the Center for the Management of IP in Health R&D (MIHR) and the Indian Council for Medical Research convened a meeting to assess the impact of Trade-Related Aspects of Intellectual Property Rights (TRIPS) in India and other developing countries. One of its conclusions supports the views in this issue: identifying the specific impacts of TRIPS or other IP policy on the pace of R&D may be difficult, if not impossible, to achieve. The meeting also concluded that increasing capacity to manage IP in IDCs and other developing countries is an urgent matter. It is in this context that the paper by van Zimmeren et al. W5 is so relevant: no matter what the patenting laws are in a given country, licensing a range of technologies and know-how is crucial to the needs of the poor in today's interconnected world. A conclusion of many case studies, including our own, is that this necessitates institutional IP management capabilities.

As these theme papers richly illustrate, innovation and IP have become key public health topics in the last 10–15 years. We must seize the opportunities created by a dynamic market-place and our improved understanding of IP systems to bring new health technologies more quickly to those who so urgently need them in developing countries.

## References

(References prefixed "W" appear in the web version only, available from www.who. int/bulletin)

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