

natureOUTLOOK

OPEN INNOVATION

12 May 2016 / Vol 533 / Issue No 7602



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Secrecy within the world of drug discovery and development is no longer as important as it once was. As development of therapies has become more difficult and costly, academics and industry competitors have begun to engage in greater collaboration and to embrace openness to accelerate research.

The road to a new drug is littered with expensive dead ends. Costly mistakes are often hidden from view and made multiple times in different laboratories (see page S54). To reduce this inefficiency, competitors are working together on basic research in pre-competitive partnerships (S56). Early research is being aided by the release of tools to explore potential drug targets. The freely available chemical probe JQ1, for instance, has sparked more innovation than it ever would have had it been kept locked away (S60). In the past decade, big pharma has come to accept that it must look for ideas beyond its walls if companies are to continue to innovate (S59). Hundreds of people, often without experience of the field, are entering competitions to solve complex biological problems (S62). And in an effort to screen the many compounds created each day, some companies have committed to examine the molecules without making claims over intellectual property (S65).

Research of neglected and tropical diseases is some of the most open. Open-source projects are publishing every step, and misstep, for all to see (S68). Despite these developments, some say that the life sciences are not as open as they should be (S70). One Canadian institute is preparing to test whether abiding by the principles of openness, including refusing to patent any of its discoveries, can work in a world where academics are expected to extract commercial value from their work (S71).

We are pleased to acknowledge the support of Boehringer Ingelheim in producing this Outlook. As always, *Nature* retains sole responsibility for all editorial content.

Richard Hodson
Supplements editor

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CITING THE OUTLOOK

Cite as a supplement to *Nature*, for example, *Nature* Vol. XXX, No. XXXX Suppl., Sxx–Sxx (2016).

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