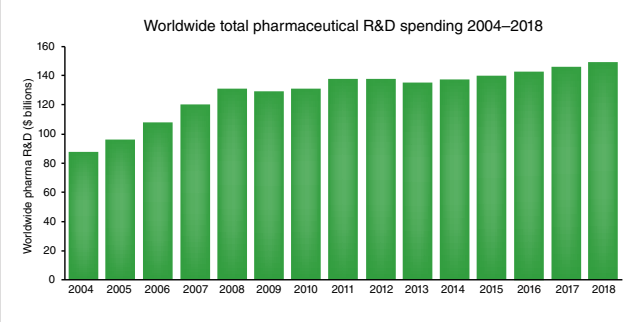
After long stagnation, growth expected in pharma R&D spending



The world's drug industry is expected to up its investment in research and development (R&D) by around 2% per year over the next five years to a total of $149 billion in 2018, according to a report released in June by EvaluatePharma. Novartis and Roche are leading the pack. The two Swiss drugmakers are forecasted to spend $10.3 billion and $9.4 billion, respectively, on R&D in five years' time, with Merck, Pfizer, Sanofi, GlaxoSmithKline and Johnson & Johnson each putting in at least another $6 billion apiece. After half a decade of relatively flat spending, the increased expenditure is welcome news to the report's author Paul Hills, an analyst at EvaluatePharma in London. However, the predicted growth in spending is actually hovering around the rate of inflation. As such, Hills says, "the challenge facing big pharma is to improve poor R&D productivity that has plagued the industry for quite some time."

proven itself to have so much in the way of unexpectedness," says trial investigator Michael Lincoff, director of cardiovascular research at the Cleveland Clinic in Ohio, "that I don't think there will be any more development of PPAR agonists for this indication."

Lung cancer drug

The cancer drugs Tarceva (erlotinib) and Iressa (gefitinib) have greatly improved outcomes for the 10–30% of people with non–small-cell lung tumors who harbor a mutation in the epidermal growth factor receptor (EGFR). But there's a catch. Nearly all patients with mutations in EGFR eventually develop resistance to these targeted agents. A more potent inhibitor—one that irreversibly binds EGFR—could help. On 12 July, the FDA gave the green light to Gilotrif (afatinib) from Germany's Boehringer Ingelheim. "The addition of afatinib to our armament is definitely a good thing," says Gregory Riely, an oncologist at the Memorial Sloan-Kettering Cancer Center in New York who led early trials with the drug. "It's always better to have more drugs that target a pathway, particularly in this very special group of patients." In two phase 3 trials of people with EGFR-mutant lung cancer, recipients of afatinib experienced a median progress-free survival of 11 months, compared to around six or seven months for those taking a standard combination chemotherapy regimen.

Hemophilia hindrance

The US Food and Drug Administration (FDA) on 27 June approved the first drug specifically for routine use in preventing bleeding episodes in people with hemophilia B. Rixubis, from Illinois-based Baxter, is a recombinant version of factor IX, the coagulation protein that is missing in people with the inherited blood clotting disorder. In a 73-person study, participants who received Rixubis twice weekly had an average annualized bleed rate of 4.2 — 79% lower than with on-demand treatment in a historical control group. Rixubis, like Pfizer's BeneFIX, the current after-the-fact gold standard for hemophilia B treatment, is also indicated for managing bleeding episodes.

FUNDING

Bond, IFFIm bond

Since 2006, the London-based International Finance Facility for Immunisation (IFFIm) has raised more than $4.5 billion through bonds to help raise money for the GAVI Alliance, the Geneva-based public-private partnership that facilitates and funds vaccination of children in poor countries. On 2 July, IFFIm announced that it had received $700 million in support from private buyers on five continents through the sale of its latest bond issue—nearly three times as much as in recent rounds. "It's a good investment in a turbulent market," says Jonathan Stern, a spokesperson for the GAVI Alliance, who credits an April outreach campaign by the organization with the IFFIm and the World Bank as a factor behind the recent success. Through the purchase of the three-year notes by institutional investors, money tied to long-term donation contracts from various nations becomes readily available for immunizations today.

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Corrections

In the July 2013 issue, the article entitled "Tuberculosis trials, already struggling, hit hard by US sequester" (*Nat. Med.* **19**, 798–799, 2013) incorrectly referred to the information source behind an expected funding decline for the Parasitic Diseases and Malaria program at the CDC Center for Global Health as the US National Institute of Allergy and Infectious Diseases. In fact, the source was the Global Health Technologies Coalition. The error has been corrected in the HTML and PDF versions of the article.

Two photo credits in the July 2013 news feature, entitled "Made in Africa" (*Nat. Med.* **19**, 803–806, 2013), were mistakenly reversed. The picture on page 804 was taken by Katherine Traut, and the picture on page 806 was taken by Peter Rimmel. The error has been corrected in the HTML and PDF versions of the article.

In the July 2013 issue, the article entitled "New tools automatically match patients with clinical trials" (*Nat. Med.* **19**, 793, 2013) incorrectly referred to CureLauncher as a clinical trial matchmaking service requiring doctors and patients to search through web listings. Rather, the company offers free concierge-type services to facilitate this matchmaking that does not require users to search through listings. The error has been corrected in the HTML and PDF versions of the article.