Pharma's role is not to bankroll biotech

To the Editor:

The editorial in the February issue entitled 'The worst of times, the best of times'[1] is well meaning and timely but misunderstands the nature of big pharma's relationship with small biotechs.

Your hypothesis—"big pharma should be more proactively investing in cash-hungry biotech companies"—is supported by data showing large companies have cash reserves plus two impossible-to-prove assertions. First, that we underestimate the "promising products" from "undervalued" biotechs; second, that biotechs are our "drug discovery engine."

Let's start with the word "should" in your hypothesis. Those of us who manage R&D investments prefer the word "must." We must invest our shareholders' funds in areas of unmet medical need. We must consider the feasibility and/or practicality of the science and likelihood of success. We must have evidence that payers will value our experimental medicines.

All this acknowledges a simple truth of our industry—there is no shortage of good ideas. Instead, we are exhilarated by the enormous number of opportunities—from within our own laboratories and from outside. Success is picking and nurturing those few with real potential. At Pfizer (New York), our choices are guided by the criteria above plus a five-point strategy that includes the directive "pursue the best external science."

As president of global research and development at Pfizer, I oversee an extensive pipeline. The majority of projects in that pipeline have come from our own laboratories, but I gladly acknowledge those discovered elsewhere. Our drug discovery engine is, in fact, a broad federation of in-house and external science. We are doing everything possible to maintain that diversity. Together with our Biotherapeutics and Bioinnovation Center, we fund academic work, incubate startups, collaborate on early science and partner in development. Two examples illustrate how, sometimes, we take on all the risk.

Sutent (sunitinib malate) is Pfizer's oral multi-kinase inhibitor indicated for the treatment of advanced renal cell carcinoma and gastrointestinal stromal tumor (GIST). Other indications are under investigation. It was discovered by the biotech company Sugen (formerly of San Francisco, before acquisition by Pfizer in 2003) but was not that company's first choice for development. The medicine's success is a tribute to Sugen's chemistry, plus significant scientific, medical and other investments from Pharmacia (Kalamazoo, MI, USA), then Pfizer.

Acquired as part of Pfizer's 2006 purchase of Rinat (S. San Francisco, CA, USA), tanezumab is a humanized monoclonal antibody designed to have high specificity and affinity for nerve growth factor. Clinical efficacy was recently demonstrated in the treatment of osteoarthritis in phase 2 trials, and phase 3 clinical studies were initiated in November last year. Tanezumab is poised to be the first biologic agent approved specifically for the treatment of pain, and it may transform the way severe, unremitting chronic low back pain is treated. Pfizer essentially assumed all of the development risk with this compound.

These two anecdotes, plus the thousands of smaller partnering deals, point to our keen appreciation for benefit sharing and financial risks. Our knowledge of biotech is considerable, we listen carefully to our external advisors and our sensitivity is based on decades of partnering with smaller biotechs and technology companies.

On behalf of our shareholders, we are enthusiastic small biotech investors but we cannot, and should not, adopt all the risks now owned by the broader financial community.

COMPETING INTERESTS STATEMENT

The author declares competing financial interests: details accompany the full-text HTML version of the paper at http://www.nature.com/naturebiotechnology/.

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1. Anonymous. *Nat. Biotechnol.* **27**, 101 (2009).

Conflating MTAs and patents

To the Editor:

It is unfortunate that the paper by Zhen Lei, Rakhi Juneja and Brian D. Wright entitled "Patents versus patenting: implications of intellectual property protection for biological research" in your January issue[1] obscures an important result with the red herring of "patents are bad for research." Indeed, the piece records that a cohort of agricultural scientists from leading research schools have a subjective belief that patenting has a negative affect on research. Paradoxically, however, respondents reported that they routinely ignore the existence of patent protection for research tools. More than 90% of respondents report that they "have never checked whether a tool that they might need in planned research is patented." The reason, according to the scientists, is that most think they won't be sued.

Upon reading the article, it is clear that the scientists polled are woefully misinformed about the difference between patents and intellectual property (IP), and that most of their responses are self-serving and reflect the cultural differences between academics and industry, with university technology transfer professionals being caught in the middle. The issue is not patents, but rather material transfer agreements (MTAs), private contracts between research universities that govern the disposition of tangible research materials. There are many and significant differences between

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