Bonsai biotech

To the Editor:

Your editorial on bailing out biotech[1] makes some good points, but misses a key one. The UK biotech industry is not a tale of unalloyed woe. Some companies' stock prices have paced the market or beaten it, some have even risen in the past six months. Both US and UK biotech stock indices have risen at a time of substantial stock market falls[2]. In general, the successful companies are those that have not had venture capital (VC) backing and have based their business on revenue rather than capital financing. Those that have been successful and were once VC-based have shed that legacy and have built up cash reserves through doing real trading. In the UK at least, business angel investment in startups seems to be buoyant, providing that those companies' business plans do not call for substantial further investment that would destroy angel value through punitive investment terms. In other words, the parts of the industry that are not dependent on institutional investors are suffering but surviving. It is only the VC-backed UK biotech industry that, in Sir Christopher Evans' words, is looking into the abyss of "an indefinite downward spiral until the very real prospect of short-term extinction."

The reasons for this are complex and need not be rehashed here. I have elaborated on them at length elsewhere[3]. Suffice to say that the VC management teams' business model in the UK, and largely elsewhere in Europe, differs greatly from that of the classic 'venture' investor in the United States, depending on management fees and rapid, continual fundraising for its profits rather than carried interest in companies well invested, well managed and well exited. This dependence on fundraising means that investee companies are used to support fundraising in a way that is often not compatible with their long-term survival, let alone growth. The result is a UK industry, which was on a par with the United States on a *per capita* basis in the early 1980s, that has shrunk steadily to a bonsai imitation of a real industrial sector in 2009. The credit crunch and associated banking collapse is just one more deadly chop at the roots of a sector already pruned to near extinction.

To give £1 billion to the industry that created those problems seems foolish, especially to establish a fund for mergers and acquisitions (M&A) when work published in your journal[4] has shown that mergers, in the hands of UK investors, are at best neutral to company survival, instead being principally a vehicle for shareholding manipulation. It would, of course, be attractive to investors: 2% management fee on two £500 million funds is £20 million fee income per annum. But it will do nothing for the biotech industry. Co-investment with overseas investors would dilute the European investment model, but with the associated risk of infecting US investors with a fees-driven, profit-blind, business model.

A much better use of such funding would be to revitalize the science base with capital for genuinely visionary programs. The biotech revolution arose out of the science of the 1960s, when funding was famously unconstricted by demands for obvious gain or guaranteed output in terms of papers, patents and spin-outs. Plasmid biology and phage host range genetics, which created the tools of recombinant DNA technology on which Amgen (Thousand Oaks, CA, USA), Genzyme (Framingham, MA, USA), Genentech (S. San Francisco, CA, USA), Chiron (Emeryville, CA, USA), Cetus (Emeryville, CA, USA) and Biogen (Cambridge, MA, USA) were founded, were odd backwaters with no obvious use and researched by tiny, maverick groups that would get no funding today. More than bailing out a failed investment model, we need to reinvigorate brilliant, curiosity-driven, blue-skies research. Good business will follow. It would keep scientists in jobs, too.

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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