

Finance/Funding

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▼ The hermit crab solution

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Are reverse mergers the answer to biotech's capital crunch? This IPO alternative, in which a viable company goes public through a defunct 'shell' company that no longer has operations, is becoming increasingly popular. But it pays to understand the downside, too.

It is no secret that the last few years have been challenging ones for young biotech companies. Heretofore, the economics of the biotech industry have been predicated on an orderly flow of financing events, beginning with the early-stage funding of a promising technology followed by sequential financings at increasing valuations and culminating in an initial public offering (IPO). Ideally, the IPO gave early investors a profitable and liquid exit and a growing company access to the capital markets.

Although venture capitalists and early investors know that not all initial investments will follow this successful path, it has always been an article of faith that the number and size of the successful exits would be substantially greater than the failures. And by and large, the system worked, even as market windows swung from wide open to tightly shut. Recently, however, biotech financing has grown more uncertain. Few offerings are being met with robust support.

This limited demand for new IPOs has placed a downward pressure on both the size and the value of new deals. Adding even more pressure, today's IPO candidates have to compete for capital with the hundreds of already existing public companies as well as with the other private companies hoping to go public. This lack of a reliable IPO exit has forced some hard choices on companies and their investors. Among the most common strategies are staying private through additional private financing rounds, going public under disadvantageous terms (if going public is even possible), and trade sales and mergers. But the most sought-after solution still remains being a public company.

A public listing offers substantial advantages to a biotech company. Biotech is a capital-intensive industry and there is more capital available in the public markets than in the private ones. In addition, a public quotation places a recognized quantitative value on a company whereas private valuations are both more subjective and also less generous. Public stock is an important currency for making acquisitions and for attracting top management. Given the importance of public stock, biotech companies are increasingly taking the road less traveled to the public market through a once-loathed, and still largely misunderstood, alternative vehicle called the reverse merger (see [Table 1](#)).



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The quick and the undead

Reverse mergers are mergers of private companies into so-called public shells. Public shells are public companies that for a variety of reasons either no longer conduct actual business operations or do not intend to do so in the future. Their main asset is their current public listing, although they sometimes carry an attractive amount of cash on their balance sheets. A private company can become public by virtue of a merger with this shell, thus avoiding the time and investment banking fees associated with a traditional IPO. Generally a public investment in private equity (PIPE) financing accompanies the reverse merger thus giving the new entity additional financial muscle.

Shells come in two flavors: biotech shells (biotech companies whose business has not panned out) and nonbiotech shells (companies whose business was not in life sciences). The most recent example of the former are the proposed merger of privately held Cyclacel of Dundee, Scotland, with Xcyte Therapies of Seattle, Washington (NASDAQ:XCYT, to become CYCC). Other recent mergers of this type can be found in [Box 1](#).

Reverse mergers between biotech companies are distinguished from traditional mergers in that it is the private company's shareholders who own the majority stake in the new company (that is, 80% in the case of Cyclacel). Also, unlike conventional mergers, the newly "merged" company's operations reflect those of the private firm, not the public one.

The assignment of relative value between the merging entities is influenced by the amount of cash remaining in the shell company. Cash-rich shells are not necessarily more desirable as they might not provide optimal value for the shareholders of the private company; the long-term value of cash may not compare to the long-term value of products. In addition, cash-rich biotech shells often have proactively identified several companies whom they consider worthy merger partners and feel able to wield the upper hand in negotiations.

The allure of a reverse merger

Reverse merging with a biotech shell has a number of advantages. Since the merger must be approved by the shell company's shareholders, having boards of directors who have common industry backgrounds and shareholders who understand biotech companies is a big asset and can save a substantial amount of time.

In the second type of reverse merger, a private biotech company merges with a public shell whose original business was in a completely unrelated field. Generally these shells trade on the Over-the-Counter Bulletin Board rather than NASDAQ. A sample of recent mergers of this type can be found in [Box 2](#).

In addition to the biotech and nonbiotech shells, there are also ready-made shells. These are public companies created with no operations, whose sole purpose is to serve as a shell. These shells may become of increasing importance as there is a finite supply of suitable, nonbiotech shells and an even smaller number of biotech shells. However, if market conditions remain stagnant, the number of biotech shells may grow and may, in fact, provide the industry with some much-needed consolidation.

Keep it clean

With regard to non-life-sciences shells, these entities need to be 'clean' or as clean as possible: in other words, having no liabilities from its former life as an operating company, possessing transparent financials and capital structure and being in compliance with US Securities and Exchange Commission filing requirements. The number of these shells is also dwindling, and their price is rising, owing to increased reverse merger activity.

By contrast, merging into a custom shell has the advantage of being by its nature 'clean.' The main drawback with these shells is that, although public, they do not trade. Nevertheless, there are still PIPE investors who are willing to put money into companies merging into these nontrading shells and wait out the three-to-four-month registration process required to establish trading operations. Increasingly, reverse merger PIPEs are attracting the interest of hedge funds and managers of PIPEs are themselves creating custom shells.

Regardless of the shell, the biggest obvious advantage for a reverse merger is the ability to become a public company in a market where investor appetite for biotech IPOs is limited. As the bar to public entry becomes ever higher, reverse mergers may be the only game in town for biotechs with a need for public capital. Attorney David Feldman, Managing Partner at Feldman Weinstein, LLP, and the author of a book on reverse mergers due out this summer, categorically states, "Reverse mergers are the new small-cap IPO." In summing up their advantages over a conventional IPO, he has three words: "cheaper, quicker, simpler." And, of course, they can actually get a company financed, which is no small thing in today's biotech market.

Feldman's views echo those of Newton, Massachusetts-based Novelos CEO Harry Palmin, a former Wall Streeter who clearly knew what he was getting into. According to Palmin, the keys to reverse merger success are

finding a clean shell, understanding the obligations of being a public company and having a good, fundamental business plan that is compatible with being public.

In the case of Novelos, the company is commercializing drugs that are approved in Russia and thus the company has a high degree of confidence that the accumulating US data will support US Food and Drug Administration approval of these drugs; the company is already in phase 3 development in the US with non-small cell lung cancer. In Palmin's view, there are no easy generalizations to be made: each company has to do its own analysis as to whether the reverse merger route and the public markets make sense.

The downside

According to Scott Silverman of Atlas Venture in Boston, Massachusetts, reverse mergers may tempt companies to go public before they are ready. "Public reporting requirements might prove distracting and expensive for such companies and if the company is not sufficiently developed, it may have inadequate news flows or progress to build a shareholder base."

In fact the lack of attention is one of the main drawbacks of doing a reverse merger. Absent investment banking sponsorship, reverse merger companies do not have the organized road shows that present them to the institutional investment community. Moreover, research analysts, who are often stretched thin to the point of invisibility with respect to a bank's existing clients, are unlikely to cover a reverse-merged company. The result is that, although public, these companies' trading volumes can remain stubbornly thin, and as a result their share prices can be vulnerable to exaggerated momentum shifts in trading that send the price wildly up or down (see [Table 2](#)).

"Companies going public via a reverse merger should be prepared to hire a good PR agency and hit the road regularly with their stories," comments David Feldman. On the other hand, from an investor's point of view these disadvantages might make reverse merger companies worth a good, hard look. With a little patience, there may be some quality investments to be had at bargain basement prices.

In addition to thin trading volumes and lack of research coverage, reverse mergers suffer from a historical stigma. Companies coming public this way have in the past been viewed as too weak to stand up to the traditional scrutiny of a full-fledged IPO. Also, shells and reverse mergers were abused in the 1980s by unscrupulous promoters, dealmakers and stockbrokers who discovered that there were many loopholes, not least of which were those that allowed unsubstantiated product and market claims. Regulators tightened the reporting requirements of these firms long ago, but the stigma survives.

However, the view that reverse-merged companies are second-class citizens is clearly changing. The biggest reason is because the prolonged doldrums of the market for biotech IPOs, which affects companies at all stages of development and of all quality levels, has made reverse mergers a much more attractive financing vehicle¹⁴. This is especially true of companies whose business continues to steadily and visibly progress in a way that is likely to eventually attract investors. It's worth noting that companies as diverse and as credible as Blockbuster, Radio Shack, Waste Management and Turner Broadcasting have made use of reverse mergers to become public companies.

As long as the IPO market remains balky, reverse mergers will be popular with all companies but increasingly with biotechs, which seem to be forever in a capital crunch. And as reverse mergers increasingly inch closer to the mainstream, they are likely to lose any stigma that remains. In other words, considering that no one is really expecting a sudden shift in the market, these transactions will remain part of the biotech landscape for the foreseeable future. Whether reverse mergers are the answer to biotech's funding woes is not yet clear. But in today's market they are certainly a new answer to an old problem.

Box 1: Recent examples of a private biotech reverse-merging with a defunct public biotech firm that had become a 'shell' company with no operations.

- AlgoRx + Corgentech (NASDAQ:CGTK)
- Epicept + Maxim Pharmaceuticals (NASDAQ:MAXM to EPCT)
- IDM Pharma + Epimmune (NASDAQ:EPMN to IDMI)
- Micromet + Cancervax (NASDAQ:CNVX to become MITI)
- Solexa with Lynx Therapeutics (NASDAQ:LYNX to SLXA)

Box 2: Recent examples of a private biotech reverse-merging with a defunct public firm that was not originally a biotech firm that had become a 'shell' company with no operations.

- Akesis Pharmaceuticals (OTBB:AKES) + Liberty Mint
- Bionovo (OTBB:BNVI) + Lighten Up Enterprises
- Ceragenix (OTBB:CGXP), created by the merger of Osmotics Pharma + OnSource Corp.
- Inhibiton (OTBB:IHBT) + Organic Soils.com
- Nolvelos (OTBB:NVLT) + Common Horizons
- Rexahn Pharmaceuticals (OTBB:RXHN) + Corporate Road Show.com
- Vyteris (OTBB:VYHN) + Treasure Mountain
- Xpention Genetics (OTBB:XPNG) + Bayview Corporation

Table 1: Top five myths about reverse mergers

Perception	Reality
1. Reverse mergers are scorned by Wall Street.	Some of Wall Street's most aggressive firms like Lazard Freres, Smith Barney, Rodman Renshaw, ThinkEquity and Feldman Weinstein, to name just a few, have either created funds dedicated to reverse mergers and other so-called special purpose acquisition company investments (SPACs), or have plans to do so in the near future.
2. The negative stigma attached to reverse mergers, in general, can adversely affect a firm's prospects for success.	There might still be some lingering stigma, but the variables that affect a company's success are no different for a firm that has undertaken a reverse merger.
3. Financing a company that has gone through a reverse merger is problematic.	To the contrary, investment bankers are now doing a booming business with these companies and raising millions for them through PIPEs.
4. Because IPOs are no longer a viable option, going public through a reverse merger is the only route now available for biotech startups today.	IPOs remain a viable option for some biotechs, so it is hardly true that reverse mergers are the only option.
5. SEC is moving to ban reverse mergers and SPACs.	In fact, the SEC will likely continue to scrutinize reverse mergers and SPACs, and perhaps even impose new regulations for them, but there is no talk of a ban.

Table 2: Stock market performance of biotechs after going public through a reverse merger

Over the counter biotechs							
Name	Price (\$)	52-week high (\$)	52-week low (\$)	200-day volume average	Market cap in \$millions	Shell, date of merger	Business
Akesis Pharmaceuticals (OTBB:AKES)	1.9	10	1.35	1,800	27	Liberty Mint, January 2005	Treatment formulations for diabetes and metabolic disorders
Bionovo OTBB:BNVI	0.84	1.66	0.72	22,500	38.7	Lighten Up Enterprises, April 2005	Drugs for women's health and cancer
Inhibiton Therapeutics (OTBB:IHBT)	2.9	5	2.5	1,400	39	Organic Soils.com, May 2005	Cancer therapeutics
Novelos Therapeutics (OTBB:NVLT)	2.11	4.47	1.53	27,900	56.4	Common Horizons, June 2005	Drugs for cancer and hepatitis
Rexahn Pharmaceuticals (OTBB:RXHN)	1.75	8	1.5	400	80	Corporate Road Show.com, January 2005	Drugs for cancer
Vyteris Holdings (OTBB:VYHN)	1.01	6	1.01	1,000	19.5	Treasure Mountain, September 2004	Transdermal drug delivery
Xpention genetics (OTBB:XPNG)	0.14	1.5	0.07	269,300	8.7	Bayview Corp., April 2005	Cancer diagnostics and therapeutics
Ceragenix (OTBB:CGXP)	1.65	3.6	1.02	3,700	21.3	OnSource Corp., May 2005	Drug delivery, dermatology, oncology, infectious disease
ZIOPHARM (OTBB:ZIOP)	4.4	18	0.5	200	31.9	Easy Web September 2005	Specialty pharma for cancer
Chelsea Therapeutics (OTBB:CHTP)	3.6	7.65	1	2,600	44.6	Ivory Capital July 2005	Drugs for cancer and immunological diseases
NASDAQ listed biotechs							
Corgentech (NASDAQ:CGTK)	9.55	32.64	8.44	43,900	67	Corgentech, December 2005	Drugs for pain and inflammation
Epicept (NASDAQ:EPCT)	4.9	12	2	30,800	99.5	Maxim Pharmaceuticals, January 2006	Specialty pharma for pain
IDM Pharma (NASDAQ:IDMI)	4	6.99	2.5	5,300	53.3	Epimmune, August 2005	Immune activators to treat cancer and infectious disease
Solexa (NASDAQ:SLXA)	11.5	19.99	4.48	31,900	338.9	Lynx, March 2005	DNA sequencing

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