

# The return of the biotech scorecard

Tom Jacobs

Just like you should go for a health checkup every year, you should also periodically check the vital signs of your investments. There are essentially three steps in checking your stock picks and comparing them with passive investments that mimic the well-known market averages.

The first is to calculate total return or 'raw gain' (e.g., shares bought a year ago at \$10 that are now worth \$15 give a total return of 50%). But total return only goes so far, because the same total return is better over fewer years and worse over more. Using any spreadsheet program, you can compute compound annual growth rate (CAGR) to find that our example's 50% total return becomes a 22% CAGR over two years, 8% over five, and a mere 4% over 10.

Finally, most investors choose a broad market average as their benchmark, with the Standard & Poor's 500 (S&P 500) an overwhelming favorite. The Dow Jones Industrial Average is too narrow, as are country averages such as the CAC (Paris) or FTSE (London). The S&P 500 is not merely a theoretical alternative, either, as many investment vehicles mimic the index. You can buy it like stock, too, with the ticker symbol SPY on the American Stock Exchange (AMEX).

Crestmark Research has found a 7% CAGR for the S&P 500 for rolling 20-year periods since the early 1900s. Though past performance is not indicative of future results, I would thus have some confidence that on average I could earn 7% a year by simply investing in this passive index.

## Benchmarking mAbs

Using this context, it's time to score ideas from my 'Just mad about mAbs' column

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published four years ago (*Nat. Biotechnol.* **20**, 869, 2002), which included five biotechs and one large pharma with tasty prospects in monoclonal antibody (mAb) drug research. With four years since publication, it's enough time for these companies to have passed business milestones and for their stock prices to reflect them.

I divided the group according to risk, using the criteria of financial strength, success in the market for existing mAb drugs and the R&D pipeline. This led to leading companies in three broad categories of risk: Johnson & Johnson (New Brunswick, NJ, USA; NYSE:JNJ), through its Centocor division, at the low-risk end; Genentech (S. San Francisco, CA, USA; NYSE:DNA), representing moderate risk mostly due to valuation; with then-unprofitable Protein Design Labs (Fremont, CA, USA; Nasdaq:PDLI), Medarex (Princeton, NJ, USA; Nasdaq:MEDX), Abgenix (Fremont, CA, USA; Nasdaq:ABGX) and Cambridge Antibody Technology (Cambridge, UK; Nasdaq:CATG) offering high-risk speculation.

## Unqualified success

The results are terrific. If you had asked me in September 2002 to predict, I would have

been wrong on all counts, auguring that Johnson & Johnson would do better than it has, Genentech worse and the four speculations a gamble, with perhaps one doubling or tripling and the rest limping along, one certainly bankrupt or close. Instead we find many doubles, a triple and a home run!

What is clear is that the technology of the higher risk companies is everything they said it was—breakthrough, destined for success. Otherwise, Abgenix and Cambridge Antibody Technology would not have been bought this year—at large premiums to their then-current valuations—by Amgen and AstraZeneca for \$2.2 billion and \$1.3 billion, respectively.

Not only did these stocks, with the exception of staid old big pharma Johnson & Johnson, provide excellent absolute total returns and CAGRs, but they hammered both the S&P 500 and the iShares Biotechnology indexes. Choosing these individual stocks would have been worth the effort versus passive index investing.

Given the investing tendency to emphasize the good and bury the bad, it's essential to score yourself now and then to determine whether you are simply better off with passive index investing or active stock picking. You may be surprised by what you find. ■

**Table 1 Then and now for mAbs**

Company/index	Risk	Share price 9/3/2002	Share price 6/2/2006	Total return	CAGR
Johnson & Johnson	Low risk	\$49.01	\$60.74	24%	6%
Genentech	Moderate risk	\$15.48	\$82.29	432%	56%
PDL BioPharma <sup>a</sup>	High risk	\$9.54	\$20.20	112%	22%
Abgenix <sup>b</sup>	Highest risk	\$7.50 <sup>c</sup>	\$22.20	196%	34%
Medarex	Highest risk	\$5.53	\$10.28	86%	18%
Cambridge Antibody Technology <sup>d</sup>	Highest risk	\$11.75	\$24.64	110%	22%
S&P 500 Index	Market average	\$82.64	\$129.00	56%	13%
iShares Biotechnology Index (AMEX:IBB)	Market average	\$46.35	\$75.18	62%	14%

<sup>a</sup>Formerly Protein Design Labs. <sup>b</sup>Purchased for \$2.2 billion by Amgen (Thousand Oaks, CA, USA; Nasdaq:AMGN) in April 2006. <sup>c</sup>Historical price no longer available; average of high and low prices for Q3 2002 is taken from Abgenix 2002 Form 10-K Annual Report. <sup>d</sup>Purchased for \$1.3 billion by AstraZeneca (London, UK; NYSE:AZN) in May 2006. Source: Yahoo! Finance unless noted.