The Ten Commandments for biotech investors

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Over five years, I've written in these pages on almost every facet of biotech investing. But I've been remiss: never before have I brought together all those precepts in one place. Therefore, as a parting thought—my column in this issue will (unhappily) be my last for *Nature Biotechnology* because growth in my business (happily) demands my complete attention—I hand down to you here Jacobs' Ten Commandments for biotech investors. If you value your financial health, these are tablets you should surely keep taking.

1. To invest in biotech drug makers, be an informed speculator

Today, 90% of biotechs either have no profits or are wildly overvalued. The other 10% are usually nondrug companies that adopt biotech advances. If you pick the former, don't be a gambler. An informed speculator knows that if the risk of loss is great, the potential gains must be truly life-changing if everything comes up aces. Use this list to determine what the possibilities really are. Don't invest on fantasies or for too little potential reward.

2. Know what you can risk

Could you live with losing every penny of your investment? If not, invest less or not at all. Do you already have a huge speculative biotech investment through your job and/or company stock? Then you probably don't need to make biotech any greater a percentage of your wealth.

3. Choose companies with exciting drug candidate(s), but don't invest on that basis alone

Don't waste your time on a drug that clearly addresses a very small patient population unless it receives orphan drug status and thus a potential monopoly. The drug must be exciting for its potential to *make money*. We all yearn for

cures to diseases, but invest in such possibilities only when you have gone through this checklist. The stock price cares only about products that sell.

4. Drug(s) should be up for approval within a few years

A drug should be in phase 3 human trials. Consider a drug earlier in trials that may boost the stock a mere 100% in ten years: that's a pitiful 7.2% a year compound annual growth rate (CAGR). When a PayPal money market account pays 5% a year, speculating for a chance at 7.2% a year is foolish.

5. Determine whether the company can survive until possible approval

Check the company's cash balance going back several years and determine at what rate it is declining. Compare that with the estimated time when the exciting lead drug, if approved and successful, could start bringing in cash. If there isn't enough cash to survive until then, the company will be forced to raise it through stock or bond sales, or alliances with bigger companies—none of which may be available at all or on favorable terms.

6. Estimate the average annual sales if the hopeful succeeds

Through patience and online searches, you can estimate potential patient market, competition and annual revenues if the drug is approved and achieves marketing success. Don't worry about being penny perfect. You want drugs that a small company shares with a larger marketing partner because it is a vote of confidence in the science and can ensure success, but don't bet the farm when your company has sold the entire product to the partner in exchange for mere royalties.

7. Gauge the potential result of success

Take 30% of the potential annual revenues from the drug (a rough average annual free cash flow) and multiply by 20 (an average multiple of enterprise value to free cash flow). For

a possible \$250 million a year, that's \$75 million times 20 or \$1.5 billion. Then find current enterprise value (EV) at Yahoo! Finance under Key Statistics. Compare them. The difference must be great. How great? See No. 8.

8. Ask if the potential reward is enough for the risk

Taking No. 7's \$1.5 billion, we have enough potential gain for the risk where the current EV, say, is a tiny \$50 or even \$100 million. But what about every other less obvious case? Look at the pipeline. Are there other drugs not many years away from submission for approval? Are they as promising? If there are none, you need the \$50 million to \$1.5 billion potential. If there are backup drugs, then perhaps a \$500 million current EV versus \$1.5 billion—a triple—is enough.

9. When you buy, also decide when you would sell

When there are good trial results or even approval, the stock price will not behave in a sane fashion, believe me. Ditto bad news or failure. Decide before you walk into the casino how much you are willing to lose or how much will make you happy as a winner. You'll keep your head when others are losing theirs.

10. Is this fun?

US public TV carries a short poetry segment with the lead line, "If it ain't a pleasure, it ain't a poem." Investing, although a challenge and work, can be fun if you are that type of person. Be honest. If it isn't fun, buy a low-expense biotech mutual fund or eschew biotech entirely. There are so many other ways to spend your time and make money. Start a business, expand your professional skills to make you more valuable in the marketplace, or achieve greater psychic income from hobbies, friends and family.

Thank you for reading, and may all your biotech speculations be informed and rewarding! So let it be written, so let it be done!

Tom Jacobs is cofounder of Complete Growth Investor, <http://www.completegrowth.com>, a stock service for individual investors.