

Wait until FDA approval is at hand. You'll miss the early run-up, but you'll avoid many disasters.

biotech drugs now on the market have been approved since 1996.

As for funding, biotech drug companies raised \$11.7 billion in 1997, according to San Francisco merchant bank Burrill & Co. The pace has continued, with \$5.7 billion raised this year through June—and that's in an industry with a total market capitalization of less than \$100 billion. What's more, the big pharmaceutical companies providing much of that financing have such an insatiable need for new drugs that biotech firms are in a strong negotiating position when cutting marketing and distribution deals. A few years ago, the big drug firm typically grabbed 75% or more of a drug's profits. Today the biotech company might retain 50%. Better capital and a bigger share of revenues will mean more profitable biotech companies. In 1986, there was just one; by 2000, there could be 50.

Despite all the above, investors have largely ignored biotech drug stocks. One reason is the success of other sectors. "If you can make 25% a year investing in Coke, why on earth would you buy a biotech stock?" asks SG Cowen Securities Corp. biotech analyst David Stone. The Internet, meanwhile, has captured the imagination of speculative investors. As a result, most biotech stocks, including those of profitable companies, are languishing at low relative valuations. That presents an opportunity to buy promising stocks on the cheap. We found three. The two profitable ones aren't bargains based on their price/earnings ratios, but all are expected to grow extremely quickly. As a result, they've been trading at very low PEG ratios (their forward-looking price/earnings ratios divided by their anticipated growth rates, a good way to value fast-growing stocks).

In coming up with our choices, we first looked for companies with drugs that weren't in a pitched battle for market share. We also wanted to see that there was a truly large market for those drugs. If a company is going to split profits with a distribution partner, even a \$50-million-a-year market is a pitance, especially when it can cost \$350 million to develop a drug. We also made

When man plays God

Biotech's dark side is being ignored, says author Jeremy Rifkin.

Twenty years ago, Jeremy Rifkin co-wrote *Who Should Play God*, which predicted advances in biotechnology like cloning and warned that they posed ethical dilemmas we ignored at our peril. In his new work, *The Biotech Century*, Rifkin says that we're still ignoring the moral and social issues raised by manipulating genes in pursuit of better "products"—be they plants, animals or our children. MONEY spoke with Rifkin in July.

Q: What are the broad risks we'll face in the Biotech Century?

A: This is an era as daunting and challenging as the advent of the Industrial Age, and it's going to come with problems that are probably far more chilling: environmental, social, ethical and cultural problems. Why? Because this revolution allows us to begin to reconfigure the blueprints of evolution for market-oriented purposes.

Q: Companies are now patenting genes. Why does that give you pause?

A: Thousands of genes and chromosomes, cell lines, tissues, organs and even whole organisms, whole genomes, are getting patents. Myriad Genetics now owns a breast-cancer gene. Myriad isolated a gene that causes breast cancer. Now there's a test for that gene. And if you go for that test, part of what you're paying for is access to screen for that gene. This is a major theological issue—is the gene pool God's creation or is it a corporate invention? It can't be both.

Q: You've written a lot about the dangers in commercial eugenics. What's wrong with giving people a choice in

what physical and other characteristics are passed to their children?

A: We normally think of Nazi Germany when we think of eugenics. But the new eugenics is banal. We're all being asked as consumers, "Don't you want healthy babies?" But who determines what that perfect baby should look like? And how tolerant are we likely to be of babies who aren't programmed, who may have physical and mental disabilities? Will we be empathetic or will we see them as errors in the code, or miswired?

Q: So what do we do in the face of the possibilities of the Biotech Century?

A: The science here is not in question. The science is valuable. The issue is what kind of technologies will we use in the marketplace and society to apply our knowledge. You could use this science to change the genes in the sperm and egg so that you eliminate diseases before you get them.

That's very problematic and raises a lot of eugenics questions. Or you could use the same science to understand the relationship between genetic predispositions and environmental triggers for diseases, so that you keep people healthy.

The rule of thumb ought to be the Hippocratic oath: First, do no harm. Second, choose the path that's least likely to cause radical discontinuities now and for future generations and that integrates our relationships with the biological system.

The most chilling prospect is that the marketplace may be the ultimate arbiter of the destiny of the human race in terms of its biological design. I'm a believer in the marketplace, but it's not well suited for making decisions that affect future generations.



Rifkin: "First, do no harm."