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THE BIOTECH BEAT
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Seeking a Prescription for Biogenerics

No U.S. laws allow for generic versions of off-patent biotech medicines. Several forces are now working to change that

To date, the boom in generic pharmaceuticals has not included biotech medicines, which are some of the world's most expensive treatments. Patents on these medicines -- which include such drugs as hepatitis medication interferon, human growth hormone, red-blood-cell boosters, and targeted antibodies that attack cancer cells -- expire eventually. However, they're not subject to competition from generic insurgents.

When U.S. generic-drug laws were passed in the 1980s under the Hatch-Waxman Act, they didn't include the nascent field of biotechnology. Today, the U.S. has no regulatory process for producers to sell generic versions of biotech drugs even if the originals have lost their patent protection.

DEBATE AT THE FDA. That may all change in the coming years. Support is building for allowing the development of generic biotech drugs. The Food & Drug Administration has indicated that discussions on the issue are starting, and opponents are already marshalling their forces. Pharmaceutical outfits -- giant Pfizer (**PFE**) among them -- have submitted petitions to the FDA that urge limiting the use of an obscure rule that could allow drugmakers to get approval for generics of certain biotech drugs. It's clear that the "FDA is attempting to deal with the issue," says Alvin Lorman, partner at law firm Foley & Lardner in Washington, D.C.

The industry, which has essentially operated as a monopoly for the past three decades, could see some fallout. Lorman counts 11 biotech medicine patents due to expire by 2006. Consider the consequences to Amgen (**AMGN**) if the rules are changed: Patents on its biggest products, Epogen and Aranesp, both red-blood-cell enhancers for anemia, begin expiring in 2004. They generated $2.7 billion in sales last year, about half of Amgen's total. Genentech (**DNA**) could be hit just as hard down the road. Its biggest product is Rituxan, an antibody treatment for lymphoma that generated sales of $1.2 billion in 2002, also about half Genentech's total.

Despite industry opposition, new regulations paving the way for biogenerics seem almost inevitable. "Everyone is convinced this is the future," says Patrick

Vink, head of biopharmaceuticals at Sandoz. "It's more a question of how should it be done in order to guarantee safe and effective drugs for consumers." That's because biotech drugs are structurally more complicated and are more difficult to manufacture than traditional pharmaceuticals.

INVESTING IN ADVANCE. Analysts figure it may be several years before new rules come into effect as legislators wrangle first over Medicare reform and other health-care issues considered more pressing. But large generic-drug makers are already getting ready. Two of the world's biggest, Teva Pharmaceutical Industries (**TEVA**) and Barr Laboratories (**BRL**), are investing in new facilities capable of producing biotech medication.

Sandoz, the generic-drug unit of Swiss pharmaceutical giant Novartis (**NVS**), is planning to launch a generic human growth hormone, called Omnitrop, in Europe next year. If approved, it will be the first generic biotech approved in the industrialized world. The payoff on it -- and other future generic biotech medicines -- could be sizeable. "Biopharmaceuticals are a growing market, and it would not be responsible to not invest in this part of the business," Vink says.

Israel-based Teva, the largest independent maker of generic drugs, is taking another tack. On Oct. 23, Sicor (**SCRI**), a small biotech known for its ambitions in making biogenerics, said it was considering a merger. Many analysts suspect Teva is involved.

In the same month, Teva confirmed that it's in the early stages of trying to buy Savient Pharmaceuticals (**SVNT**) in a deal valued at roughly $365 million. Savient has been making human growth hormone, insulin, and a wide array of other generic biotech products for sale outside the U.S. Analysts speculate that Teva wants to acquire Savient for its ability to make biotech products (see BW, 11/3/03, **"Biotech: Teva's Next Triumph?"**).

MORE COMPLEXITY. Barr Research, with $903 million in sales in fiscal 2002, is actively lobbying to bring about new rules for generic biotech drugs, says Carole Ben-Maimon, Barr's president and chief operating officer. "We hope to be in the markets making and selling these products when the time comes." In the meantime, Barr will gain experience with tricky, biotech-style manufacturing by making vaccines for respiratory infections at a dedicated facility for the Defense Dept.

Getting the regulatory processes set up is just the beginning. "It's a lot more difficult than meets the eye," says Stefan Loren, health-care specialist and managing director at Legg Mason. The greater complexity of manufacturing biotech drugs means the FDA will require producers to collect more data on them than on a traditional drug. Barr's Ben-Maimon and Sandoz' Vink both note that the FDA will likely ask for additional testing on a case-by-case basis. For example, Vink says Sandoz' filing to European regulators for human growth hormone included extra studies, plus Phase III tests that compared its product to branded versions.

Loren expects the generic biotech industry to be on a steep learning curve.

Upfront costs of building plants are high, and profits may be slim at the outset. He notes that even large companies with years of biotech experience can fumble. Johnson & Johnson (**JNJ**), for one, has struggled recently with production of its biotech drug Eprex, which is manufactured in Puerto Rico and sold in Europe.

TOUGH FIGHT. Foley & Lardner's Lorman adds that the generics industry will have to duke it out with makers of branded biotech products. Since Congress passed Hatch-Waxman, the process of getting a generic drug to market, though much faster than a new branded drug, has never been a smooth ride.

Still, it's clear that many of the most innovative new medicines are increasingly emerging from the realm of biotechnology. Generic knockoffs are coming -- it's just a matter of how soon. The seemingly endless skyrocketing of health-care costs will only speed the day.

Tsao covers biotechnology issues for BusinessWeek Online. Follow her **Biotech Beat** column only on BusinessWeek Online
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