FINANCE

PUBLIC MARKETS FAVOR BIOTECH OFFERINGS

NEW YORK—The first half of 1987 is witnessing yet another boon in biotech public financing. Some $357 million had been raised by the middle of May, with deals totaling $376 million more still in registration with the Securities and Exchange Commission (SEC). "You can time it to when the market for these stocks turned around," says Teena Lerner of L.F. Rothschild, Unterberg, Towbin.

The most striking theme from the current wave of activity is that five of the eight companies making initial public offerings (IPOs) emphasize agriculture: Crop Genetics International, Ecogen, Mycogen, Plant Genetics, and Escagen (which, by the way, shed the name International Plant Research Institute as it used its IPO to emerge from bankruptcy). Native Plants Inc. (NPI) is one of the few agbiotech firms to remain private, although industry observers wonder whether it won't be next .

Denise Gilbert of Montgomery Securities (San Francisco, CA) notes that the top market capitalization of biotech IPOs has been declining over the years with increased investor understanding of these firms. In 1981, for example, Cetus was valued at around $500 million when it went public; in 1986, Genetics Institute grabbed the highest IPO valuation at $300 million. Vaccine specialist Praxis Biologics leads this year's class with the much more down-to-earth market capitalization of $180 million.

Another group tapping the public equity market is made up of firms that took advantage of *last* year's IPO window. These funding-hungry companies include Xoma, Genetics Institute, and Biotherapeutics.

1987's Public Offerings by Biotech Companies

Month	Company	Capital to be raised (in $ millions)	Security
February	Biotherapeutics	12.3	Convertible Stock
March	*Agouron Pharmaceuticals	6.2	Common stock
March	*Crop Genetics International	23.2	Common stock
March	*Escagen	18.0	Common stock
March	Genentech	150.0	Convertible debt
March	*Praxis Biologics	27.1	Common stock
April	Amgen	68.0	Common stock
April	Bio-Technology General	20.0	Convertible debt
May	Xoma	32.5	Common stock
Registration	Cetus	100.0	Convertible debt
Registration	*Ecogen	≈20.7	Common stock
Registration	Genetics Institute	≈75.0	Common stock
Registration	Immunomedics	≈30.6	Common stock
Registration	Liposome Co.	≈14.2	Common stock
Registration	*Liposome Technology	≈23.6	Common stock
Registration	*Mycogen	≈22.4	Common stock
Registration	*Plant Genetics	≈28.1	Common stock
Registration	Summa Medical	≈6.0	Common stock
Registration	Synbiotics	≈12.5	Common stock
Registration	Synergen	≈21.8	Common stock
Registration	Vega Biotechnologies	≈4.8	Common stock
Registration	Vestar	≈16.4	Common stock

TOTAL equals $730 million to be raised, including $170 million in 8 initial public offerings (indicated by asterisks).

Although it remains to be seen whether all the companies currently in registration with the SEC actually complete their offerings, analysts agree that the climate still seems favorable. The only casualty so far has been Integrated Genetics, which cancelled a planned sale of 2 million preferred shares, ostensibly because its stock price had dipped.

And stock offerings have not represented the only way in which biotech firms have been raising cash. Genentech, Cetus, and Bio-Technology General turned to convertible debt financing to meet their voracious needs. Genentech and Cetus pioneered a new approach by selling their notes to the European market. Is it working? Genentech's offer was originally slated for $100 million, but strong demand induced the company to up the figure to $150 million. Factor in a $75-million Eurobond offering from drug-delivery specialist Alza, and the European market accounts for over $300 million in financing this year.—**Arthur Klausner**

ENVIRONMENTAL ISSUES

RELEASE FROZEN IN GERMANY?

NEW YORK—The West German Parliamentary Commission has recommended a five-year moratorium on the environmental release of genetically engineered microorganisms. This pronouncement prompted a flurry of correspondence across *Nature's* editorial pages, and a clarification of just what the moratorium covers is beginning to emerge.

The moratorium is not as all-encompassing as it first appeared; a wide-spread moratorium, objected Food and Drug Administration officials Frank E. Young and Henry I. Miller, would "...send an ominous and misleading message to regulators and others that all genetically manipulated organisms are hazardous." (*Nature* **326**:326, 1987).

Responding to Young and Miller, Ernst-L. Winnacker, professor of biochemistry at the University of Munich—and the only member of the 17-person commission who is actively involved in recombinant DNA research—says that the moratorium covers only those microorganisms that contain foreign genetic material. It does *not* cover microbes such as the "ice-minus" bacteria recently released in California—organisms containing deletions or other genetic changes that could be achieved by traditional genetic means. However, these "novel applications" will have to be registered with the Central Commission for Biological Safety. The moratorium also does *not* cover those microorganisms that are already "in common use" i.e., those used for sewage treatment, agricultural pesticides, in agriculture, and in food production. However, releasing "manipulated" viruses—except those used in human and veterinary vaccines and those used for pest control—is forbidden.

Winnacker adds that one of the reasons that compelled him to vote for the report's acceptance is the hope of convincing the German public that this new technology is acceptable. The Green party, which doesn't even approve of basic research using recombinant DNA techniques, has a great deal of public support—the Greens just increased their representation in the Parliament by more than 50 percent in January's federal elections. —**Jennifer Van Brunt**