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IRA FINANCE MEETING

GENETICS INSTITUTE COUNTS ON SECOND-GENERATION PRODUCTS

KEY BISCAYNE, Fla.—Ever since its mammoth \$79-million initial public stock offering last summer, Genetics Institute (GI, Cambridge, MA) has been an enigma to biotechnology analysts. The firm's science is recognized widely as top-notch, but its lack of products nearing the marketplace quickly knocked the stock down about 40 percent from its original \$30 offering price. It has since rebounded to the mid \$30s.

Early this year, Stuart Weisbrod of Prudential-Bache (New York, NY) and Linda Miller of PaineWebber (New York, NY) published diametrically opposed views of this broadbased genetic engineering concern. Weisbrod recommends selling GI stock, noting that the company does not have a clear lead in any of its four major near-term products-tissue plasminogen activator (t-PA), erythropoietin (EPO), granulocyte macrophage colony stimulating factor (GM-CSF), and factor VIII:C. In addition, these products have all been licensed away to major pharmaceutical companies. And Weisbrod doesn't foresee significant product revenues coming until 1989; he expects GI to run in the red until 1990.

Miller, however, rates GI "attractive" based on its 1986 financial results: with revenues up 13 percent, it met PaineWebber's target of \$19.3 million. She believes that the firm is turning the financial corner following 1986 losses of \$4.5 million, and she is looking for breakeven in 1988. Also on the plus side, during the second half of '86 GI's t-PA, GM-CSF, and EPO all entered human clinical trials.

Gabriel Schmergel, GI's president, had his opportunity to address the financial community in February at a meeting sponsored by the Industrial Biotechnology Association (Washington, D.C.). The former Baxter-Travenol executive stressed that GI's next generation of products-including second-generation t-PA, secondgeneration factor VIII, macrophage colony stimulating factor, and interleukin-3—are all wholly owned by the company (although Baxter does hold rights of first refusal on the factor VIII). In addition, GI is working on two proprietary drug design projects. a number of blood cell growth factors, and products in the bone growth area; GI also recently recaptured rights to its biological insecticide from Uniroyal following that firm's leveraged buyout. "There will be some licensing deals done, mostly abroad," says Schmergel, "but we are keeping a lot for ourselves."

Last year, Genetics Institute entered into a unique joint venture with Wellcome Biotechnology (Kent, U.K.). Called WelGen Manufacturing Inc., this equally owned mammalian cell culture facility is to be built either in Rhode Island or Massachusetts. The two firms are collaborating on the development of first-generation t-PA, and this protein will be the first made at the new plant.

According to GI vice president of finance Garen Bohlin, cost estimates for the 100,000-square-foot facility have crept up from \$30 million to the \$35–40-million level. Schmergel expects that each partner will contribute about \$5 million in equity capital and that the rest will be raised through debt financing.

Interestingly, in a few years Wel-Gen could find itself manufacturing competing first- and second-generation t-PA products. According to Schmergel, Wellcome turned down a chance to participate in second-generation t-PA a few years ago when the project seemed "very blue-sky." Protein engineering has come a long way since then, however, and several months ago GI's effort received a boost when the company signed up Desire Collen of the University of Leuven (Belgium) to consult exclusively for GI on second-generation t-PA and fibrinolytic agents. Collen, a pioneer in the field and a consultant to Genentech (South San Francisco, CA) on first generation t-PA, could be the man most responsible for Genentech's t-PA success.

Second-generation projects are a touchy subject to discuss, and Schmergel will only describe GI's three-year-old effort in general terms: optimization of half-life and increasing fibrin affinity.

Genetics Institute's transition from a licensing house to developing its own products (now accounting for some 30 percent of total expenses) has not been without problems—mostly reflected in red ink on the balance sheet. "We've been doing everything step-by-step and minimizing the risks all the way," explains Schmergel. "And I believe we are well-positioned to emerge as the number two biotechnology company."

—Arthur Klausner