

IN BRIEF

Genentech's 2nd IPO

Genentech raised nearly \$2 billion during its second initial public offering (IPO) on July 20 when Roche Holding refloated part of the company after acquiring all outstanding shares in June (*Nature Biotechnology* 17, 634, 1999). Twenty million shares were sold at \$97 per share, raising nearly \$2 billion and increasing Genentech's value from \$11 billion to \$15 billion. "This is very good news in general for the industry," as it shows an awakening of investors' interest in biotechnology, says Steven Burrill, CEO of Burrill & Co. (San Francisco, CA). However, he points out that "the market is increasingly discriminating against smaller companies," rewarding only those biotech firms with actual or imminent sales and earnings. "Definitely, the bars have been raised," agrees Eric Schmidt, analyst at SG Cowen (New York), who says that "investors are no longer only interested in sexy science," but are focusing on companies with a good market reputation and promising drugs in final-stage development. For instance, Cubist Pharmaceuticals (Cambridge, MA), whose share price jumped 17% (\$0.75) following the Genentech IPO, has a new antibiotic, daptomycin, in late-stage trials in the US and Europe. "Genentech[s success] will only reinforce the prevailing expectation of investors that products are important," adds Viren Mehta from Metha & Partners (New York).

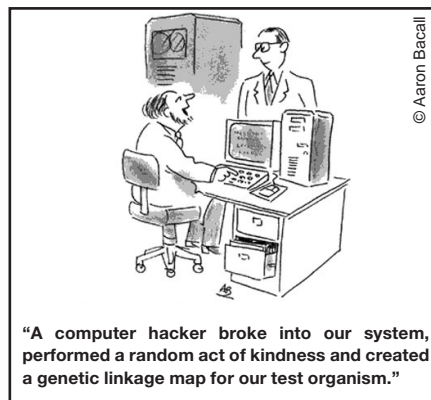
CT turns focus to StemCell

CytoTherapeutics (Lincoln, RI) has cut its work force by about 75% (60 employees) to concentrate on its subsidiary, StemCell (Freemont, CA). The move follows disappointing trial results of its encapsulated cell implant for pain, and subsequent withdrawal of partner AstraZeneca (London). Since 1995, AstraZeneca had funded clinical trials and provided over \$7 million yearly for research in the pain program. As a result of the R&D halt, the Rhode Island Partnership for Science and Technology (RIPSAT) is demanding repayment of a \$2.6 million award it granted CytoTherapeutics, alleging the company is in default under a 1989 funding agreement. CytoTherapeutics contests the claims. Meanwhile, StemCell recently reported the ability to create a renewable source for human neural stem cells (*Experimental Neurology*, August), "marking an important step in the ability to develop neural stem cells toward a commercial product," according to president and CEO Richard Rose.

A spoon full of honey...

Dutch scientists from the Centre for Plant Breeding and Reproduction Research in Wageningen have genetically modified plants so that honey made from their nectar contains medically useful proteins. The work is based on the discovery of a gene promoter that is

specific for the nectary, the nectar-producing organ of the plant. By expressing genes under the control of this promoter, specific proteins are produced in the nectar, which is then collected by bees and concentrated into honey. The high concentration of sugars in honey stabilizes the protein structure, making purification relatively easy. "It's very simple to purify proteins from honey," says lead scientist Tineke Creemers, "because the other constituents are just sugar." Creemers has filed for a patent on the method in Europe, the US, Japan, and Korea, and is now looking for commercial collaborators to produce a vaccine against parvovirus in genetically modified petunias. Parvovirus is highly contagious and causes severe vomiting and diarrhea in dogs; Creemers thinks a vaccine could be given directly as honey or honey capsules.



© Aaron Bacall

Research collaborations

Company 1	Company 2	\$ Millions	Details
Trimeris (Durham, NC)	Roche (Nutley, NJ)	88	The companies will co-develop Trimeris's anti-HIV fusion inhibitors, T-20 and T-1249, which attack HIV before it infects new cells. Trimeris will receive \$10 million up front and up to \$78 million in milestones, plus royalties in the US. Roche will have worldwide marketing rights to both compounds but will share costs and profits in the US.
Targeted Genetics (Seattle, WA)	Elan Corp (Dublin, Ireland)	22	An agreement to form a new subsidiary of Targeted Genetics, called Emerald Gene Systems, which will focus on gene delivery. Emerald will be 19.9% owned by Elan, which could invest \$22 million in various TG stock.
Cambridge Antibody Technology (Melbourn, UK)	Human Genome Sciences (Rockville, MD)	*	An agreement to use CAT's technologies to generate and optimize fully human monoclonal antibodies against HGS's target human proteins. As well as research funding, CAT could receive milestones and royalties on resulting novel therapeutics.
Argonex (Charlottesville, VA)	Rohm and Haas (Philadelphia, PA)	*	The companies have formed a joint venture, RheoGene LLC, which will use Argonex's immunotherapeutic discovery technology and Rohm's gene-switching technology to develop tools for use in gene therapy applications.
Rhône-Poulenc Animal Nutrition (Lyon, France)	Diversa Corp (San Diego, CA)	*	Diversa will develop novel enzymes for use as alternatives to chemical synthesis in biotransformation, with the aim of providing economic and environmental advantages over current processes. RPAN has exclusive worldwide rights to the enzymes.

*financial details not disclosed