Non-GM futures

The world's first futures market for non-GM soybeans opened on May 19 at the Tokyo Grain Exchange, with the first day's trade fetching ¥29,400 (US\$280) per ton—¥3,400 (US\$32) higher than the "undifferentiated" variety comprising a mixture of GM and non-GM soybeans. The opening of the new market reflects the growing anti-GM sentiment among Japanese food manufacturers, which are turning increasingly toward non-GM ingredients-a move prompted by last year's decision by the Ministry of Agriculture, Forestry, and Fisheries (Tokyo) to begin mandatory labeling of GM foods in April 2001. However, the market price of non-GM soybeans has since fallen more than 20%, and analysts have started voicing concern about the long-term viability of the new market. Many fear that supply will surpass demand when the novelty wears off: Although 97% of Japan's total soybean consumption comes from imports, 80% of that is processed into oil, which does not require labeling. AS

Gene therapy proposals

In June, a US working group that reviewed NIH's system for overseeing gene therapy and transfering clinical protocols recommended an approach to bring the NIH Recombinant DNA Advisory Committee (RAC) more fully into that process without formally voting on the acceptability of proposals as it once did. Thus, investigators may be asked to respond to RAC-voiced concerns while they also meet the formal Investigational New Drug requirements of the FDA. However, members of the

group, which was cochaired by Christine Cassel of the Mount Sinai Medical Center (New York) and Stuart Orkin of Harvard Medical School (Boston, MA), could not fully agree on how or whether to change the reporting of serious adverse events arising from such clinical trials. In general, according to Orkin, the group recommends that federal officials find some way to harmonize the timetables specifying when investigators and sponsors are required to transmit information about adverse events to FDA and NIH. Moreover, he says most review group members also agree that raw data about such events should be withheld from the public, which would be better served by reports that provide analyzed information in an appropriate context. IF

UPenn ends IHGT trials

The University of Pennsylvania (UPenn; Philadelphia, PA) announced on May 24 a plan to address the controversy surrounding the death of a patient at its Institute for Human Gene Therapy (IHGT). The measures include, most notably, discontinuation of all human gene therapy clinical trials within IHGT, although such trials outside the institute will continue. In addition, UPenn will strengthen its Institutional Review Board system and review its conflict-of-interest policies. UPenn Provost Robert Barchi says that the university is not backing away from gene therapy, but has decided to do a university-wide reorganization of how all human research is conducted. UPenn is stepping up monitoring for some high-risk trials, Barchi says, and because of the added manpower required for such oversight, it does not

make sense to duplicate those resources for one institute within the university. James Wilson will remain as director of IHGT but will now focus on preclinical research involving animal models and vector development.

The plan was announced following the completion of a report by an independent review panel appointed by university president Judith Rodin after the patient's death last September (*Nat. Biotechnol.*, 17, 1153, 1999). The panel did not directly find fault with IHGT but raised questions about how trials have been conducted. JG

CuraGen launches subsid

Genomics-based drug discovery company CuraGen (New Haven, CT) announced in early June the launch of 454 Corporation, a subsidiary to develop novel technologies for use in drug discovery, preclinical development, and pharmacogenetics. According to CuraGen founder and CEO Jonathan Rothberg, 454's goals are very different than its parent: Whereas CuraGen is focused on drug development, 454's focus will be on creating tools, such as software, that will make use of knowledge of the entire genome, not just individual genes. So as not to dilute CuraGen's resources, says Rothberg, it is necessary to bring in a separate management team as well as new investors for the subsidiary. However, CuraGen's investors stand to benefit because CuraGen's majority stake in 454 will allow it to stay on the edge of new technology and access the new tools first, says Rothberg. CuraGen's stock rose about 9% the day of the announcement, to \$39.88. IG

Company 1	Company 2	\$ million	Details
Tularik (S. San Francisco, CA)	Japan Tobacco (Tokyo)	75	A deal to discover, develop, and commercialize products to treat metabolic diseases. Tularik, which will receive a \$25 million upfront payment and \$50 million in research funding over the next five years, will form a wholly owned subsidiary, Tularik Pharmaceutical, to discover drugs using a gene-regulation approach. The two companies will share equally in development and commercialization expenses.
Xenon Genetics (Vancouver, BC)	Warner Lambert (Morris Plains, NJ)	58	An agreement to identify novel drug targets and lead compounds for treatment of low levels of HDL cholesterol using Xenon's expertise in the clinical genetics of cardiovascular disease. WL will pay Xenon for exclusive rights to develop and commercialize resulting products.
Chiron (Emeryville, CA)	Singapore	22	A venture to create S*BIO, an integrated genomics and small-molecule-based drug discovery company. Chiron will receive \$22 million over two years and will invest \$8 million of its own money, giving it a 20% stake in S*BIO. The Singapore government will have rights to Chiron's gene expression and combinatorial chemistry technologies, and Chiron will retain rights to commercialize products and buy back successful targets.
Celera Genomics (Rockville, MD)	Geron (Menlo Park, CA)	*	The project, which combines Geron's expertise in human pluripotent stem cells technology with Celera's sequencing and gene discovery capabilities, will focus on identifying and assigning function to genes that are important in early human development. That information will be used to develop small-molecule pharmaceuticals and other therapies. The companies will work together an discovery and will license some intellectual property to third parties.

Research collaborations