

Corporate Activity – Mergers and Acquisitions

Impending mergers and acquisitions

Applied Biosystems of Foster City, CA, has signed a definitive agreement to acquire **Agencourt Personal Genomics** (APG) of Beverly, MA, a privately held developer of next-generation genetic analysis technologies, for approximately \$US120 million. The all-cash transaction is expected to close in Q3 2006. APG's massively parallel fluorescence sequencing by stepwise ligation technology is a novel, extremely high-throughput approach to DNA/RNA analysis. This technology is expected to be complementary to current Applied Biosystems platforms and applicable to many genetic analysis applications, including *de novo* genome sequencing, medical sequencing, high-throughput gene expression, and high-throughput genotyping. Applied Biosystems currently anticipates that it will place initial systems with early-access customers during 2007. The company has a website at www.appliedbiosystems.com.

AstraZeneca, which currently holds nearly 20% of **Cambridge Antibody Technology** (CAT), has announced its intention to the remaining CAT shares in a deal that values the company at £702 million (\$US1.3 billion). Building on the success of an existing collaboration, CAT will become central to AstraZeneca's plans to establish a major international presence in the research and development of biological therapeutics. CAT's capabilities, when combined with AstraZeneca's global development and marketing expertise, will deliver an expanded pipeline of novel biological therapeutics to address unmet medical needs of patients in AstraZeneca's targeted disease areas. CAT is based near Cambridge, UK, and has a new site in Palo Alto, CA. Further information about CAT is available at www.cambridgeantibody.com.

Biogen Idec of Cambridge, MA, has signed a definitive merger agreement to acquire **Conforma Therapeutics** of San Diego, CA; the transaction is expected to close in Q2 2006. Conforma is focused on the discovery and development of drugs that inhibit heat shock protein 90 (HSP90) molecules, which are involved in protecting and supporting the growth of cancer cells across a range of tumor types, and which also play a role in tumor resistance to a number of leading cancer therapies. The company has advanced two compounds into phase I clinical trials. The companies have websites at www.biogenidec.com and www.conformacorp.com.

Biogen Idec has also signed a definitive agreement to acquire of **Fumapharm**. Headquartered in Lucerne,

Switzerland, Fumapharm is a privately held pharmaceutical company that develops therapeutics derived from fumaric acid esters. The two companies have jointly developed BG-12, an oral fumarate in clinical trials for the treatment of multiple sclerosis and psoriasis. Further information about the company can be found at www.fumapharm.ch.

Merck & Co. has entered into a definitive agreement to acquire **Abmaxis**, a privately held biopharmaceutical company focused on the discovery and optimization of monoclonal antibody (MAb) products for human therapeutics and diagnostics. Located in Santa Clara, CA, Abmaxis gained the attention of the biomedical research field for its breakthrough antibody engineering technology platform, Abmaxis in-silico Immunization (AISIM™), which enables structure-centric computational design followed by experimental selection of optimized human or humanized monoclonal antibodies. The starting point for the process can be an antigen target, a murine, animal or human antibody. Under the terms of the acquisition agreement, Merck will acquire 100% of the equity of Abmaxis for \$US80 million in cash; Abmaxis will become a wholly owned subsidiary of Merck & Co. The agreement is expected to close in Q2 2006. Additional information about Abmaxis is available at www.abmaxis.com.

Merck & Co. has entered into a definitive agreement to acquire **GlycoFi** (Lebanon, NH), a privately held biotechnology company that is a leader in the field of yeast glycoengineering and optimization of biologic drug molecules. Glycoengineering provides the ability to make proteins such as monoclonal antibodies with prespecified and defined human carbohydrate side chains. The ability to make such proteins in yeast has advantages of speed, cost and quality over current methods of producing monoclonal antibodies and other protein therapeutic agents. Under the terms of the merger agreement, Merck will acquire 100% of the equity of GlycoFi, which will become a wholly owned subsidiary of Merck & Co. The all-cash transaction is valued at approximately \$US400 million and is expected to close in Q2 2006. Additional information about GlycoFi is available at www.glycofi.com.

Millipore of Billerica, MA, has signed a definitive agreement to acquire **Serologicals** of Atlanta, GA, in an all-cash transaction; the total value of the transaction is estimated at approximately \$US1.4 billion. The strategic combination of Millipore and Serologicals will

significantly strengthen Millipore's Bioscience Division by giving it leading positions in high-growth segments such as drug-discovery products and services, antibodies, cell biology reagents, and stem-cell research. Millipore expects to increase sales of Serologicals' products in international markets such as Europe, Asia and Japan, where Millipore has a significant presence. Millipore's Bioprocess Division will gain a cell-culture supplements offering that will facilitate its entry into the \$US1 billion upstream bioprocessing market. As a result, Millipore will be the only company in the industry that can offer both upstream cell culture and downstream separation offerings for biopharmaceutical production, further strengthening its relationships with biotechnology and pharmaceutical customers. The companies have websites at www.Millipore.com and www.serologicals.com.

Dutch company **QIAGEN** has entered into a definitive merger agreement to purchase all outstanding shares of **Gentra Systems** of Minneapolis, MN. The cash transaction, valued at approximately \$US38 million, is expected to close at end of Q2 2006. Gentra is a company that develops nonsolid-phase nucleic acid purification products, providing both consumables and automated platforms. The acquisition expands QIAGEN's position as a leading provider of preanalytical and molecular diagnostics solutions to research and diagnostic customers. Further information about the two companies can be found at www.qiagen.com and www.gentra.com.

Two leaders in the provision of products and services to the laboratory, health and life-sciences industries will combine forces in a mega-merger valued at \$US10.8 billion. **Thermo Electron** of Waltham, MA, and **Fisher Scientific International** of Hampton, NH, have signed a definitive agreement to combine the two companies in a tax-free, stock-for-stock exchange. The transaction will be treated as a reverse merger with Thermo acquiring Fisher. The new company will be named Thermo Fisher Scientific and is expected to have 2007 revenues of >\$US9 billion. Thermo and Fisher have complementary technology leadership in instrumentation, life-science consumables, software and services. By combining these capabilities, the company will be uniquely positioned to provide integrated, end-to-end technical solutions. The companies have websites at www.thermo.com and www.fisherscientific.com.

Completed mergers and acquisitions

Danish company **7TM Pharma** has acquired **CareX**, a private company based in Strasbourg, France. CareX specializes in discovery of small-molecule drugs for the treatment of metabolic diseases. The current focus is on

CB1 receptor antagonists for treatment of obesity and SGLT inhibitors for treatment of type 2 diabetes. 7TM Pharma is a discovery and development biotech company with focus on new pharmaceutical drugs targeting 7TM receptors, a large group of highly valuable drug targets with ample room for exploitation – approximately 40% of current prescription drugs target 7TM receptors, but use only 5% of the known 7TM receptor targets. The company has a website at www.7tm.com.

Advanced Refractive Technologies (San Diego, CA), an ophthalmology development company has acquired **Ocular Therapeutics**, a subsidiary of technology transfer company **UTEK**, in a stock transaction. Ocular Therapeutics has licensed a small protein therapeutic (LD22-4) for the treatment of the wet form of age-related macular degeneration (AMD). Wet AMD is one of the leading causes of severe vision loss and blindness in the adult population. Because LD22-4 directly targets a fundamental requirement for the proliferation of blood vessels, i.e. cell migration, its mode of action is distinct from other drugs that are on the market or that are in development by other biotechnology or pharmaceutical companies. Additional information is available at www.advancedrefractive.com.

UK-based companies **Amura** and **Proteom** have merged to create a leader in small-molecule drug design and discovery focusing on inflammation and autoimmune diseases; the merged company will retain the name Amura. Proteom brings a computational screening and design platform, ProtoDiscovery™, to combine with Amura's proprietary bicyclic molecular scaffold chemistry, AMcore™. ProtoDiscovery is used to design, build and screen virtual compounds *in silico* against specific targets, selecting and ranking the best for *in vitro* testing. The AMcore patented chemical scaffolds – structural subunits common to a group of molecules – provide key building blocks for designing novel drug like molecules. AMcore provides molecules with functional pharmacokinetic properties including specificity, solubility and chiral stability. Further information is available at www.amura.co.uk.

AVANIR Pharmaceuticals has completed its acquisition of **Alamo Pharmaceuticals** for approximately \$US29 million; both companies are based in California. Alamo is a privately owned specialty pharmaceutical company that currently markets FazaClo® (clozapine, USP), the only orally disintegrating formulation of clozapine for the management of severely ill schizophrenic patients who fail to respond adequately to standard drug treatments. FazaClo is also indicated for reducing the risk of suicidal behavior in patients with schizophrenic or

schizoaffective disorder. This acquisition significantly enhances AVANIR's portfolio by adding a marketed CNS product. Further information can be found at www.avanir.com.

Australian biotech **Avantogen** and US-based **Hawaii Biotech** have completed the merger combining their respective vaccine businesses. The combined company will continue to be known as Hawaii Biotech and will incorporate both Avantogen's and Hawaii Biotech's complementary technologies. The company will maintain the existing corporate headquarters and vaccine development laboratories in Oahu, HI, as well as an office in San Diego, CA. Additional information is available at www.advantogen.com and www.hibiotech.com.

Biotech company **CancerVax** of Carlsbad, CA, and biopharmaceutical company **Micromet** of Munich, Germany, have completed their merger. The combined company, trading as Micromet, has a highly differentiated drug-development pipeline focused on oncology, autoimmune and inflammatory diseases, and a strong, proprietary technology base for the development of antibody-based product candidates. Further information is available at www.micromet-inc.com.

Covance of Princeton, NJ, has acquired **Signet Laboratories** for \$US8.95 million. Based in Dedham, MA, Signet is a leading provider of monoclonal antibodies used in the research of cancer, infectious disease and neurodegenerative disease. The acquisition strengthens Covance's leadership position in providing antibodies and detection reagents that support early drug development discovery. The company has a website at www.covance.com.

PerkinElmer (Wellesley, MA) has acquired the assets of **Spectral Genomics** (Houston, TX), a leader in molecular karyotyping technology used to evaluate chromosomal abnormalities. Spectral proprietary Array CGH (Comparative Genome Hybridization) technology provides a high-resolution global view of the human genome, enabling researchers to identify the exact location of any chromosomal deletions and amplifications that can cause an increased risk of genetic disease. Array-based karyotyping is widely expected to replace florescent *in situ* hybridization (FISH), G-banding microscopic analysis and other conventional forms of karyotyping in the cytogenetic market. The Array CGH marketplace is also positioned for strong growth as more academic institutions leverage this technology in their biomarker discovery programs. Additional information is available at www.perkinelmer.com and www.spectralgenomics.com.

Biotech company **Warnex** has completed the acquisition of genetic testing service provider **PRO-DNA**

Diagnostic for \$Can1.9 million (\$US1.7 million) in cash and shares; both companies are based in Canada. The acquisition marks Warnex's entry into the field of human genetics testing and pharmacogenomics. The company has a website at www.warnex.ca.

YM BioSciences of Mississauga, ON, Canada, has completed the acquisition of **Eximias Pharmaceutical** (Berwyn, PA), a privately held pharmaceutical company engaged in the development of products for the treatment of cancer and cancer-related disorders. Eximias will become a wholly owned subsidiary of YM named YM BioSciences USA and will serve as the company's base of operations in the US. The company has a website at www.ymbiosciences.com.

New companies

Cabrellis Pharmaceuticals (San Diego, CA) has been spun out from **Conforma Therapeutics** ahead of Conforma's acquisition by **Biogen Idec** (see above). Cabrellis is a specialty pharmaceutical company focused on the development of cancer therapies; the company's lead product Calsed™ (amrubicin hydrochloride) is expected to enter phase II clinical testing by Q3 2006. Further information is available at www.cabrellis.com.

Australian biotech **Circadian Technologies**, in collaboration with the Ludwig Institute for Cancer Research (LICR) and the commercial arm of the University of Helsinki, **Licentia**, has formed a new company, **Vegenics**, to develop and commercialize the intellectual property and technology of LICR and Licentia with respect to molecules known as vascular endothelial growth factors (VEGFs). These growth factors are a family of proteins that play an important role in promoting the growth of new blood vessels and maintenance of existing blood vessels. The approach of inhibiting VEGF and thus restricting blood and nutrient supply to tumors has potential in the treatment of cancer. Circadian will make an initial equity injection of \$A4 million into Vegenics, which will be 50% owned by Circadian and 50% by LICR and Licentia. Vegenics will initially focus on developing peptide and antibody antagonists to two forms of VEGF (VEGF-C and VEGF-D) as anticancer agents. Additional information is available at www.circadian.com.au.

Clinical Data of Newton, MA, plans to spin off its vilazodone business to a newly created company, **Precigen Therapeutics**. Precigen will be separately financed to develop and commercialize vilazodone, a novel dual serotonergic antidepressant compound being studied for treatment of depression, along with a potential companion biomarker test that will be developed by the

PGxHealth division of Clinical Data. Additional information is available at www.clda.com.

Kenta Biotech has been spun off from **Berna Biotech** (a **Crucell** company); the new company is located at the Berna Biotech premises in Berne, Switzerland. Kenta Biotech owns a unique technology platform to create fully human monoclonal antibodies which are expected to have substantial advantages over currently available monoclonal antibodies. It is developing a portfolio of therapeutic monoclonal antibodies that are specifically designed to treat life-threatening hospital-acquired infections such as serious *Pseudomonas aeruginosa* or *Staphylococcus aureus* infections as well as other diseases. The company has a website at www.kentabiotech.com.

PrimeGen Biotech of San Diego, CA, has created a wholly owned subsidiary – **PrimeCell Therapeutics** (Irvine, CA) – to work exclusively on the therapeutic development of PrimeCell™, the first adult, nonembryonic stem cell capable of transforming into any cell type found in the body. PrimeGen will license to PrimeCell Therapeutics all of the intellectual property assets as necessary for the new company to develop the PrimeCell technology. The new company will focus solely on adult stem cell reprogramming, and preparing PrimeCell for therapeutic development and application. To date, using therapeutic reprogramming technology, human germ cells have been successfully transformed into human heart, brain, bone and cartilage cells. Further information is available at www.primegenbiotech.com.

UK-based **Vectura** has spun out its oral and dermal technology subsidiary **PharmaKodex**, with funding from **Unilever Ventures**. The transaction leaves Vectura to focus on its pulmonary drug delivery technologies. PharmaKodex is developing a pipeline of improved medicinal products, focusing on re-purposing existing drugs for new indications or combinations, or providing an improved route of administration. The PharmaKodex development pipeline currently comprises seven prescription products and six over-the-counter products. The companies have websites at www.vectura.com and www.pharmakodex.com.

Name changes

Zonagen of The Woodlands, TX, has changed its name to **Repros Therapeutics**. The company is engaged in the development of pharmaceutical products that address serious conditions of the male and female reproductive systems. The company's lead compound Proellex is an antiprogestin currently being studied in phase II clinical trials for the treatment of uterine fibroids and for endometriosis. Androxal, the company's other program in late clinical development, is designed to restore testosterone production and is being tested in a phase III clinical trial for the treatment of testosterone deficiency, a condition that has been linked to osteoporosis, low libido and reduced muscle mass in men. For more information, see the company's new website at www.reprosrx.com.