

Corporate Activity – Mergers and Acquisitions

Impending mergers and acquisitions

Australian companies **Alchemia** and **Meditech Research** are to merge in a transaction valued at \$A16.9 million. The merger brings together two companies with technology platforms based on carbohydrates. The chemistry expertise of Alchemia complements the biology expertise of Meditech. Meditech has strong preclinical and clinical expertise which will accelerate the development of Alchemia's drug-discovery efforts. The companies have websites at www.alchemia.com.au and www.mrl.com.au.

Andrx of Plantation, FL, and **Watson Pharmaceuticals** of Corona, CA, have signed a definitive merger agreement providing for the acquisition of Andrx by Watson. Under the terms of the agreement, Watson will acquire all of the outstanding shares of Andrx common stock in a cash transaction valued at approximately \$US1.9 billion. On completion, Watson will become the third largest generic pharmaceutical company in the US, based on prescriptions dispensed. The companies have websites at www.watsonpharm.com and www.andrx.com.

Australian biotech **Avantogen** and US-based **Hawaii Biotech** have entered into a definitive agreement to combine their respective vaccine businesses. The combined business, as yet unnamed, will be 50% owned each by the two companies' shareholders and will focus exclusively on prophylactic and therapeutic vaccine development. Under terms of the agreement, Avantogen will contribute \$US3.5 million in cash, its vaccine adjuvant program (currently in phase I human trials) and Pentrys vaccine program (currently in phase II human trials), and its senior management team, while Hawaii Biotech will contribute its vaccine R&D team, its preclinical vaccine programs and facilities, its vaccine grant funding, and \$US1 million in cash. Additional information is available at www.avantogen.com and www.hibiotech.com.

Dynavax Technologies of Berkeley, CA, plans to acquire biopharmaceutical and vaccine manufacturer **Rhein Biotech** in a cash transaction of approximately \$US12 million. Rhein Biotech is part of a company majority-owned by Swiss company **Berna Biotech** (Berna was recently acquired by Dutch biotechnology company **Crucell**). Dynavax has had an agreement with Berna for supply of hepatitis B surface antigen for use with HEPLISAV™, its hepatitis B vaccine. The transaction is designed to accomplish key strategic goals for both Dynavax and Crucell. Through this acquisition, Dynavax gains ownership of a European Union (EU) GMP-certified

vaccine manufacturing facility, control over the production of hepatitis B surface antigen and potentially other antigens to support clinical and commercial programs, and a complementary pipeline of vaccine and antiviral products. The transaction enables Crucell to continue to focus on core competencies by divesting a nonstrategic asset. Further information is available at www.dynavax.com.

Fisher Scientific International of Hampton, NH, has initiated two transactions that will significantly enhance its capabilities in molecular diagnostics. Fisher has entered into a definitive agreement to acquire privately held **Athena Diagnostics** of Worcester, MA, for \$US283 million in cash; the transaction is expected to close early in Q2. Athena has an extensive portfolio of proprietary neurologic, nephrologic and endocrine diagnostic tests targeting such diseases as neurogenetic and neuromuscular disorders as well as Alzheimer disease, multiple sclerosis, obesity, kidney disease and diabetes. Athena's strong intellectual property will make Fisher a technology leader in providing personalized, gene-based tests and sophisticated tools and services for molecular biology. Fisher will be well positioned to capitalize on advances in gene-based therapies that drive demand for genetic testing. Fisher has also entered into an agreement to purchase 9% of **Nanogen** of San Diego, CA, for \$US15 million in cash. Nanogen is a leading provider of advanced molecular diagnostic equipment, microarrays and reagents for diagnostic applications. Fisher and Nanogen will collaborate to expand the use of Athena's proprietary markers and tests. Additional information is available on the companies' websites at www.fisherscientific.com, www.athenadiagnostics.com and www.nanogen.com.

In Japan, **Nikken Chemicals** is set to become a wholly owned subsidiary of **Kowa** through a stock exchange, which is scheduled to take place on 1 August. Kowa and Nikken Chemicals jointly announced that the two companies have agreed to consolidate their ethical drug businesses by October 2006. With this move, Kowa and Nikken Chemicals aim to reinforce their sales force and expand their presence in the market. In addition, Nikken Chemicals plans to change its company name.

PharmAthene of Annapolis, MD, and **SIGA Technologies** of New York, NY, have entered into a merger agreement. The combined company, which intends to operate under the name PharmAthene, features a substantial portfolio of procurement-stage biodefense products targeting anthrax, smallpox and chemical nerve agents, as well as a robust pipeline of therapeutic and

prophylactic drug candidates targeting Category A biowarfare agents and emerging infectious diseases. The transaction is expected to close during Q2 or Q3. Further information is available at www.PharmAthene.com and www.siga.com.

Dutch biotech company **Pharming** has signed an agreement to acquire **DNage**, a privately held company based in Rotterdam, The Netherlands, focused on discovery and development of products for aging diseases and cancer. DNage was founded in 2004 as a spin-off from the Erasmus Medical Center in Rotterdam to commercialize research in the area of DNA damage and repair. DNage currently has active programs in the areas of osteoporosis, neurodegeneration (brain diseases), metabolic diseases (type 2 diabetes) and genetic diseases (premature aging). Additional information is available on the companies' websites at www.pharming.com and www.dnagenl.nl.

Pharmos of Iselin, NJ, has entered into a definitive agreement to acquire **Vela Pharmaceuticals** of Lawrenceville, NJ, a privately owned company specializing in the development of medicines related to diseases of the nervous system, including disorders of the 'brain-gut axis'. The cash and shares transaction has a combined value of approximately \$US29.7 million. The transaction will create a combined company focused primarily on diseases of the nervous system and autoimmune disorders. Additional information is available at the company's website at www.pharmoscorp.com.

Schering AG is the subject of two offers – a hostile takeover by **Merck KGaA** and a counter offer by **Bayer**. Taking the role of a 'white knight', Bayer has proposed a merger plan with a total value of €16.3 billion (\$US19.8 billion). The offer price is 39% above the Schering share price before the announcement of the hostile bid by Merck KGaA and 12% above Merck's competing offer of €14.6 billion. Bayer plans to merge its existing Pharmaceuticals Division with Schering to create an independent division of Bayer HealthCare named Bayer-Schering Pharmaceuticals. The merged pharmaceuticals business will be based at Schering's present headquarters in Berlin. If the transaction is completed, the merger would create a global healthcare company that ranks among the top 12 in the world. However, with combined pharmaceutical revenues of around \$US10.8 billion, Bayer-Schering would still be some way off the leaders – Pfizer with 2005 sales of >\$US50 billion, GlaxoSmithKline, Novartis and Sanofi-Aventis with sales >\$US30 billion and Roche and AstraZeneca with sales >\$US20 billion.

Serologicals of Atlanta, GA, has signed a definitive agreement to acquire **Cytomyx**. Based in Cambridge, UK, Cytomyx is a leading provider of ion channel cell lines and drug-discovery services. With 23 distinct ion channel

cell lines commercially available, and more in its pipeline, Cytomyx currently offers the largest portfolio of distinct ion channel cell lines in the marketplace. Biopharma customers are interested in ion channels for two key reasons. First, ion channels are implicated in a variety of pathologies, including cardiac disease, hypertension, epilepsy, cystic fibrosis and pain. Second, ion channels play a role in cardiac arrhythmia. A specific ion channel, human ERG (hERG), has been associated with the toxicity of several pharmaceutical drugs. As a result, the US FDA requires that all compounds entering clinical development are tested for activity against hERG. The acquisition of Cytomyx will enable Serologicals to provide not only kinase screening services to pharmaceutical and biotechnology companies but also test compounds for hERG liabilities and activity against other ion channels associated with cardiac safety. More information is available from the company website at www.serologicals.com.

Serologicals of Atlanta, GA, has signed a definitive agreement to acquire **LINCO**, a private life-sciences company focused on supplying research assays and test kits for the Luminex-based Multiplexing platform and other immunoassays. The \$US75 million cash transaction is expected to be completed in Q2. Based in St Louis, MO, LINCO consists of two companies: LINCO Research, which provides multiplex, ELISA and RIA immunoassay products and technologies; and LINCO Diagnostic Services, which provides bioanalytical contract services supporting research and new pharmaceutical drug development. The combination of these companies strengthens Serologicals' Luminex-based multiplexing portfolio. Further, the acquisition enables Serologicals to address the metabolic disease research market, a rapidly growing segment, given its relevance to the aging baby boomer population. The company has a website at www.serologicals.com.

Other impending transactions

Japanese biotech company **Aqumen Biopharmaceuticals** is to open a US base for the company's operations in partnership with The Science Center in Philadelphia, PA. The company is a Kyushu University-launched venture company developing medicines and surgical tools for the treatment of age-related macular degeneration and other ophthalmic disease and diagnostic applications. The Science Center will provide management resources, laboratory space, administrative support, and regulatory guidance.

Completed mergers and acquisitions

Albany Molecular Research (AMR) of Albany, NY, has completed the acquisition of **ComGenex** of Budapest, Hungary, a private drug-discovery services company that

combines chemical synthesis and computational chemistry to create drug-like compounds. The completed acquisition provides AMR with an immediate presence in Europe. AMR is a global drug-discovery company that provides chemistry services to pharmaceutical and biotechnology companies and conducts its own proprietary R&D programs. In combination with AMR's facilities in the US and Asia, the acquisition enhances the company's ability to offer a range of flexible services and cost models and provides a hub from which to establish additional relationships with European pharmaceutical and biotechnology companies. The company has a website at www.albmolecular.com.

Allergan of Irvine, CA, has completed its acquisition of **Inamed** of Santa Barbara, CA; the latter is now a wholly owned subsidiary of Allergan. Allergan is a technology-driven, global specialty pharmaceutical and medical device company that develops innovative products for the ophthalmology, neurosciences, medical dermatology, medical aesthetics and other specialty markets. The acquisition of Inamed expands Allergan's global position as a premier specialty pharmaceutical and medical device company in high-growth markets and creates a world-leading medical aesthetics franchise, providing a broad, complementary portfolio of pharmaceutical and medical device products. The company has a website at www.allergan.com.

Angiotech Pharmaceuticals of Vancouver, BC, Canada, has closed its acquisition of **American Medical Instruments** for approximately \$US785 million in cash. The transaction provides Angiotech with global manufacturing, marketing, and sales capabilities and enhances the company's ability to capitalize on its current product pipeline in a wide range of specialty therapeutic areas. The company has a website at www.angiotech.com.

Canadian medical device company **ART Advanced Research Technologies** has closed the transaction to acquire substantially all of the imaging technology and product assets of **Alerion Biomedical** of San Diego, CA, a developer and manufacturer of biomarkers and contrast media for preclinical and clinical imaging devices. The deal provides ART with the Fenestra™ biomarker technology. An advantage of this technology is that it enhances imaging on a user-friendly and nonradioactive basis, making the technology more cost effective as it permits multiple scans on the same specimens over long periods of time. The technology was developed following >5 years of research at the University of Michigan and investment of >\$US10 million in combined research and development funding. More information can be found at the company's website at www.art.ca.

Clinical Data of Newton, MA, has purchased **GENOME express**, a French genomics services company,

for €2.65 million (approximately \$US3.16 million). This acquisition is seen as strengthening Clinical Data's global leadership position in the pharmacogenomics and molecular services markets, and provides a significantly enhanced base of operations for strategic growth in Europe. This deal follows hard on the heels on Clinical Data's reorganization. The company's business units now include three divisions: PGxHealth™, Cogenics™ and Vital Diagnostics™. PGxHealth builds upon existing assets acquired from Genaissance Pharmaceuticals in the areas of genomics-based clinical diagnostics, therapeutic efficacy and safety biomarker development for drug utilization. Cogenics (Comprehensive Pharmacogenomics and Molecular Services) represents the combined operations, sales and marketing infrastructure of Genaissance, Lark Technologies and Icoria. Vital Diagnostics is geared toward servicing the clinical laboratory in the traditional clinical *in vitro* diagnostics (IVD) market, focusing on the physician's office, hospital and small- to medium-sized laboratory segments. The company has a website at www.clda.com.

DUSA Pharmaceuticals of Wilmington, MA, has closed its acquisition of **Sirius Laboratories** of Vernon Hills, IL, which now becomes a wholly owned subsidiary. DUSA is a biopharmaceutical company engaged primarily in the development and marketing of Levulan® Photodynamic Therapy (PDT) for multiple medical indications, with its primary focus on dermatology. PDT utilizes light-activated compounds to induce a therapeutic or detection effect. With the completion of this transaction, DUSA will expand its focus on dermatology. The former Sirius was a private dermatology specialty pharmaceutical company, founded in 2000, with a primary focus on the treatment of acne vulgaris and acne rosacea. The company has a website at www.dusapharma.com.

Canadian biotech **Procyon Biopharma** has completed its acquisition of French biotech **Cellpep**. In addition, the corporate name of Procyon has been changed to **Ambrilia Biopharma**. Procyon is a biotechnology company engaged in the development of innovative therapeutics in the fields of cancer and HIV/AIDS. Cellpep brings a complementary oncology and infectious diseases product portfolio that includes two late-stage high-value generics. Further information is available on the corporate website at www.ambrilia.com.

Transition Therapeutics has completed its acquisition of all remaining outstanding shares of **Ellipsis Neurotherapeutics**; both companies are based in Toronto, ON, Canada. The key asset in this transaction is Ellipsis' lead molecule AZD-103, a disease-modifying agent with the potential to both reduce disease progression and improve symptoms such as cognitive function. During the last 15 months, Transition has led the rapid advancement

of AZD-103 toward clinical development through its service agreement with Ellipsis. This acquisition will create a solid foundation for Transition to build a strong franchise in the area of Alzheimer disease therapeutics. The company has a website at www.transitiontherapeutics.com.

Xcyte Therapies of Seattle, WA, has completed its acquisition of UK-based **Cyclacel**; the combined company will be renamed **Cyclacel Pharmaceuticals**. The new company is focused on the discovery and development of small-molecule cell-cycle inhibitors for the treatment of cancer and other serious diseases. Currently the company has two drugs, seliciclib and sapacitabine, in clinical trials for the treatment of cancer. The company has a website at www.cyclacel.com.

Other completed transactions

In a \$US273 million cash transaction, **Applied Biosystems** of Foster City, CA, has completed its acquisition of the Research Products Division of **Ambion**, a provider of innovative products for the study and analysis of ribonucleic acid (RNA), the central molecule used in gene expression and regulation. The research and development, manufacturing, and other operations of Ambion's Research Products Division will continue to be based in Austin, TX. Founded in 1989, Ambion develops and supplies products for stabilizing, synthesizing, isolating, detecting, amplifying and quantifying RNA. Ambion will become a center of excellence within the Molecular Biology Division's consumables business with a focus on expanding the range of innovative consumables products in the Applied Biosystems portfolio. Applied Biosystems has a website at www.appliedbiosystems.com.

Calypte Biomedical of Lake Oswego, OR has acquired a 51% equity interest in **Beijing Marr Bio-Pharmaceutical**, a wholly foreign-owned enterprise existing under the laws of the People's Republic of China. The remaining 49% equity interest in Beijing Marr is owned by **Marr Technologies Asia**. As a result of this acquisition, Calypte Biomedical has acquired rights to manufacturing facilities and other assets necessary for the production of its Aware™ line of HIV-1/2 rapid test products in China. The company has a website at www.calypte.com.

UK-based **Tepnel Life Sciences** has completed its acquisition of the GenXTrak™ DNA extraction business from UK-based **Whatman** for an undisclosed sum. The

Cambridge-based GenXTrak business will now operate within Tepnel's service division, offering rapid and reliable extraction, purification, quantification and normalization of clinical DNA samples. The acquisition expands Tepnel's access to the pharmacogenomics testing market and positions the company as one of Europe's largest providers of DNA extraction services. The company has a website at www.tepnel.com.

New companies

On the back of its merger with Avantogen (see above), **Hawaii Biotech** will spin out its anti-inflammatory small-molecule development business into a new entity, **Cardax Pharmaceuticals**, to be wholly owned by current Hawaii Biotech shareholders. Additional information is available at www.hibiotech.com.

diaDexus and Biotechnology Value Fund (BVF), both based in San Francisco, CA, have formed a new spin-out company, **CFD Therapeutics**, to develop novel cancer therapeutics. CFD will specifically focus on the development of therapeutic monoclonal antibodies directed against proprietary ovarian, pancreatic, breast, colon, prostate and lung cancer targets licensed from diaDexus. BVF has made an initial investment in CFD, through which it has assumed majority ownership in the company. diaDexus has provided an exclusive license to CFD for its entire portfolio of therapeutic targets and associated monoclonal antibodies. CFD will use its initial funding to advance antibodies directed against the two most promising candidate targets through preclinical development; CFD owns full rights to the two programs entering preclinical development. Other select pipeline candidates will be co-developed under a partnership agreement with **Medarex**. For more information about CFD, visit www.cfdtherapeutics.com.

TiGenix, a Belgium-based biomedical company focusing on functional repair of damaged and diseased musculoskeletal tissues, has established a US presence (TiGenix, Inc.), opening its first office in New York City. TiGenix was founded in 2000 as a spin-off of the Universities of Leuven and Ghent. TiGenix is finishing its phase III clinical trial in Europe for ChondroCelect, its lead cartilage repair product. Once data from the clinical trial are analyzed, TiGenix will work on necessary filings with the US FDA to facilitate local approval of ChondroCelect. The company has a website at www.tigenix.com.