

BIOWORLD® FINANCIAL WATCH

MONDAY
APRIL 28, 2008

VOLUME 16, No. 17
PAGE 1 OF 18

With Money at 5-Year Low, Biotechs Getting Creative

By Karen Pihl-Carey
Senior Staff Writer

Just as the owner of a once economical four-door sedan reaches for a credit card to pay nearly \$4 a gallon at the gas pump, biotech executives do the same, only they're fueling a more costly research and development engine and their credit comes in the form of cautious investors.

The problem with the credit card, or the investments from venture capitalists and the public markets, is that at some point in time, preferably sooner rather than later, people want to be paid back, and usually with interest.

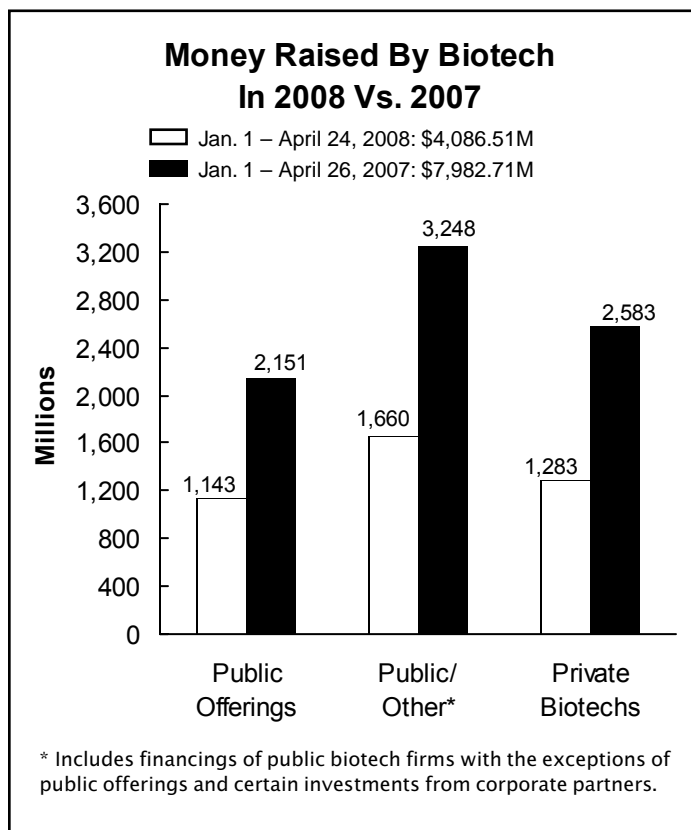
When they aren't, they scrutinize more and sometimes withdraw their help.

Welcome to the first quarter of 2008 – a strong indicator that Wall Street is full of reluctant investors, even for the biotech industry.

According to figures tracked by *BioWorld Financial Watch*, the industry has raised the least amount of money in this year's first quarter, about \$3.4 billion, than it has in each of the previous four years, falling short of last year's first quarter by about \$2.5 billion. Even when broken down, first quarter 2008 public offerings (\$1.14 billion), private offerings of public companies (\$1.2 billion) and venture capital financings (\$1.06 billion) are each lower than the first quarters of 2004, 2005, 2006 and 2007.

Since the bubble of 2000, when \$14.8 billion had been raised in the first quarter, only 2001 and 2003 brought in less money than this year.

"I'm not surprised. I'm sure the numbers don't lie. It certainly feels like it's been a very difficult quarter for



biotech fundraising," said analyst Eric Schmidt, of New York-based Cowen & Co., who added that some of the melt-down is in response to the broader markets. "Fortunately," he told *BioWorld*, "the industry is still relatively well financed and one bad quarter won't make or break the industry, but we do sense there are a number of companies that [will need to raise] money over the next 12 or 24 months."

See Financing, page 2

10 BIGGEST U.S. GAINERS FOR THE WEEK

(By Percent)		(By Dollars)	
Progenics Pharma	94.77	Sirtris	9.62
Sirtris	75.87	Progenics Pharma	6.52
deCODE genetics	22.41	IDEXX Laboratories	5.76
DOV Pharma	20.00	Invitrogen	5.74
CytRx	19.28	Illumina	5.72
Affymax	15.86	Rigel Pharma	2.95
Sunesis Pharma	15.79	Pharma Prdct Dev	2.74
Access Pharma	15.56	Acorda Therapeutics	2.28
Rigel Pharma	15.34	GTx	2.27
GTx	15.15	Martek Biosciences	2.22

10 BIGGEST U.S. LOSERS FOR THE WEEK

(By Percent)		(By Dollars)	
Genitope	-50.00	ISIS Pharma	-4.9
Nastech Pharma	-45.95	Amylin Pharma	-2.87
Spectrum Pharma	-39.41	Bruker BioSci	-2.84
ISIS Pharma	-29.01	Celera Genomics	-2.38
Bruker BioSci	-18.78	Genzyme	-2.25
Trubion Pharma	-15.60	Celgene	-1.34
Celera Genomics	-15.38	Trubion Pharma	-1.34
Barrier Therapeutics	-13.36	InterMune	-1.19
Keryx Biopharma	-13.21	Nastech Pharma	-1.19
Telik	-13.13	Cephalon	-1.12

INSIDE:

COLLABORATIONS BETWEEN BIOTECH COMPANIES3
MANUFACTURING, MARKETING AGREEMENTS; MODIFIED DEALS11, 15

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Financing

Continued from page 1

BioWorld Snapshots lists that there are 17 biotech companies waiting to conduct initial public offerings in the U.S. The industry managed to squeak through a whopping one IPO in the first quarter, when Bioheart Inc. raised \$5.8 million in February. The last time the industry had only one IPO in the first quarter was when ZymoGenetics Inc. raised a more respectable \$120 million in 2002, although there were no IPOs in 2003's first quarter. On average, there's been about six IPO's conducted in the first three months of each year.

"I think there's been a lot of investor fatigue with IPOs," Schmidt said, pointing to the poor performance of many of last year's IPOs, but he views it as more of a "general market phenomenon."

The Nasdaq Market has notified a number of companies within the last week that they need to reach the minimum \$1 bid price requirement or risk losing their listing. Those companies include Threshold Pharmaceuticals Inc., of Redwood City, Calif.; Critical Therapeutics Inc., of Lexington, Mass.; Pharmacyclics Inc., of Sunnyvale, Calif.; Accentia Biopharmaceuticals Inc., of Tampa, Fla.; Cell Therapeutics Inc., of Seattle; and EpiCept Corp., of Tarrytown, N.Y.

Companies also are cutting back on expenses to carry them through a recession. Theravance Inc. reduced its workforce by 40 percent last week, but is still expected to need a new financing in 2009.

David Giannetto, a co-author along with Anthony Zecca of *The Performance Power Grid: The Proven Method to Create and Sustain Superior Organizational Performance*, said the key for business professionals during a time like this is to get out of the "base mindset where they blame everything on the downturn."

"If you have to resort to negative thinking, it's how do we weather this storm," he said.

J.P. Morgan has already announced earlier this month in a conference call how it plans to survive a recession: by focusing on large biotech stocks because the industry is

not dependent on consumer spending and healthcare has historically outperformed other sectors during a market downturn.

Schmidt acknowledged that the top six biotech stocks are "up as an average quite considerably vs. a market that's down," suggesting the interest could trickle down to smaller cap companies.

"Just because we've had a bad first quarter in no way removes the possibility that the year might end better," he said. "I think we've seen some modestly encouraging signs in the last month that things are improving."

Some companies are turning to creative solutions, something Cowen & Co. calls "alternative financings," Schmidt said, such as CV Therapeutics \$175 million non-dilutive financing this month, in which it sold 50 percent of the future U.S. royalties on sales of Lexiscan to TPG-Axon Capital. The infusion "will allow the company to become cash flow positive," Schmidt wrote in a research note.

In March, CytRx Corp. decided to pay a dividend to its stockholders by granting one share of its subsidiary, RXi Pharmaceuticals Corp., for every 20.05 shares of CytRx common stock held, essentially reducing its ownership of RXi from 85 percent to 49 percent, and handing RXi over to the public markets where it trades on Nasdaq under the symbol "RXII." Technically, the transaction was the second biotech IPO in the U.S. for 2008, but it raised no money for RXi and as such is not included in BioWorld's first quarter financial numbers.

Other companies have used research and development partnerships to fund their work, or sale and lease-back deals of their facilities, a method that netted Neurocrine BioSciences Inc. \$61 million in early December.

Even London-based Vernalis plc decided to recapitalize its business last week by signing over 90 percent of the European revenues from its migraine treatment frovatriptan to Paul Capital Healthcare in return for \$29.2 million.

See Financing, page 14

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Collaborations Between Biotech And Pharmaceutical Companies: Feb. 14 - April 24, 2008#

Biotech Co.* (Country; Symbol)	Pharma Co. (Country)	Type/Product Area	Terms/Details (Date)
Accelr8 Technology Corp. (AMEX:AXK)	Becton, Dickinson and Co.	Agreement to fund an 18- month milestone project using Accelr8's BACcel rapid bacterial diagnostic system	BD also will have the option to license the technology for product development, manufacturing and commercialization for the clinical diagnosis of infectious diseases (4/1)
Advanced Cell Technology Inc. (OTC BB: ACTC)	Pharming Group NV (the Netherlands)	Agreement for an exclusive, global license to nonhuman use of certain patents associated with oocyte activation	Pharming will pay ACT a one-time license fee; financial terms were not disclosed (2/29)
American Oriental Bio- engineering Inc. (China; NYSE:AQB)	China Aoxing Pharmaceutical Co. Inc.	Agreement to develop and commercialize narcotic and pain-management products in China	American Oriental will make an equity investment in China Aoxing of \$18M for 30M shares of newly issued China Aoxing common stock, for 60 cents a share, giving American Oriental 38% of the company (4/16)
Amgen Inc. (AMGN)	Kyowa Hakko Kogyo Co. Ltd. (Japan)	Licensing agreement for a CCR4 antibody, KW-0761	The deal is worth \$100M up front and up to \$420M in milestones (3/6)
Amyris Biotechnologies*	Sanofi-Aventis SA (France)	Agreement to work with the Institute for One World Health to develop semi-synthetic artemisinin, an ingredient in first-line malaria treatments	Companies will jointly develop and design manufacturing processes, with the goal of introducing low-cost semi-syn- thetic artemisinin into the supply chain and artemisinin combination therapies in 2010 (3/3)
Antisense Therapeutics Ltd. (Australia; ASX:ANP)	Teva Pharmaceuticals	Licensing agreement for its second-generation antisense inhibitor of CD49d in multiple sclerosis	The deal nets \$2M up front and possibly up to \$100M down the road (2/20)
Avant Immuno- therapeutics (AVAN)	Pfizer Inc.	Agreement for CDX-110 for glioblastoma	The deal includes \$40M up front and \$10M in equity investments as part of the ex- clusive worldwide licensing agreement; Avant also is eligible for milestones in excess of \$390M, as well as double-digit royalties (4/17)

Biotech Co.* (Country; Symbol)	Pharma Co. (Country)	Type/Product Area	Terms/Details (Date)
Bio-Bridge Science Inc.*	JR Scientific Inc.	Nonbinding memorandum of understanding to form a joint venture in China focused on producing culture medium, serum and other bioproducts to sell in China and other countries	The agreement with JR Scientific and its president and CEO, Jan Baker, involves a total investment of about \$1.4M (4/16)
Bioinvent International AB (Sweden; SSE:BINV)	Bayer HealthCare AG (Germany)	Agreement for the discovery and development of antibody products	Bayer will have a nonexclusive research license for the use of BioInvent's n-CoDeR library and access to an extended antibody technology suite; Bayer will fund all activities and BioInvent will receive license fees and additional milestone payments and escalating royalties on sales of any products commercialized (3/12)
Biolex Therapeutics Inc.*	Merck Serono (affiliate of Merck KGaA; Germany)	Collaboration to evaluate the ability of Biolex's LEX System to optimize antibody glycosylation structures and production	Financial terms were not disclosed (2/19)
BioMerieux SA (France; PARIS:BIM)	Hitachi High- Technologies Corp. (Japan)	Partnership to develop microbiology and molecular diagnostic systems	The companies will work together to identify and develop new systems, with Hitachi charged with manufacturing the new instruments and BioMerieux handling commercial distribution (3/17)
Celera Group (NYSE:CRA)	Merck & Co.	Exclusive two-year license agreement for access to up to 10 cancer targets related to RNA interference-based therapeutics	Those targets were identified via Celera's proteomics discovery platform and are overexpressed on the surface of a number of tumor cell types; Merck has the option to extend the license period or add more targets (4/10)
Cell Genesys Inc. (CEGE)	Takeda Pharmaceutical Co. Ltd.	Partnership for Cell Genesys' late-stage cancer vaccine, GVAX	Deal is potentially worth \$320M, including \$50M up front and \$270M in milestones, as well as tiered double-digit royalties on GVAX sales in the U.S. and flat double-digit royalties on sales outside the U.S. (4/1)
Cenix BioScience GmbH* (Germany)	AstraZeneca Pharmaceuticals LP (UK)	Framework research agreement to advance Cenix's efforts in the discovery and validation of therapeutic drug targets	Cenix will use its expertise in combining high-throughput applications of RNAi-based gene silencing with high-content phenotypic analyses in cultured human cells; financial terms were not disclosed (3/20)

Biotech Co.* (Country; Symbol)	Pharma Co. (Country)	Type/Product Area	Terms/Details (Date)
Cerimon Pharmaceuticals*	Novartis Pharma AG (Switzerland)	Agreement to conduct proof-of-concept study for Simulect (basiliximab) for the treatment of noninfec- tious uveitis	Cerimon licensed the product from Novartis in 2006 for the treatment of inflammatory bowel disease (3/10)
Crucell NV (the Netherlands; CRXL)	Wyeth Pharmaceuticals	Exclusive vaccine develop- ment agreement	Crucell will be responsible for the develop- ment and manufacture of certain com- ponents of a vaccine for use by Wyeth in clinical studies; Wyeth will be responsi- ble for the clinical development of the vaccine (3/3)
Eurand NV (EURX)	Chiesi Farmaceutici SpA (Italy)	Exclusive license agreement to Chiesi's gastro-resistant, controlled-release tablet formulation of the corticos- teroid, beclomethasone dipropionate in the U.S. and Canada	Eurand will make an up-front payment and commercial milestone payments to Chiesi, as well as royalties on net sales (4/15)
EUSA Pharma* (UK)	GlaxoSmithKline plc (UK)	Licensing agreement for OP-R003, a human anti- interleukin-6 antibody	GSK will pay \$44M in an up-front fee and development milestones, plus and royalties on product sales; the pharma firm gains rights worldwide to OP-R003 in rheumatoid arthritis and other indications; Vaccinex Inc., which discovered the antibody, will share 50% of fees, payments and royalties (2/18)
Evotec AG (Germany; FSE: EVT)	Ono Pharmaceutical Co. (Japan)	New drug discovery agreement targeting a protease chosen by Ono	Ono will pay to Evotec initial payments for access to Evotec's fragment-based drug discovery platform, EVOLution, research funding, as well as success-based mile- stones (3/27)
Exelgen Ltd.*	Undisclosed	Two drug discovery collab- orations: one with a Euro- pean partner for small- molecule therapeutics for central nervous system disorders, Alzheimer's disease, neuro-inflammation and Type II diabetes; the other with a U.S. company for the design and library synthesis expertise of Exelgene	The first includes an up-front payment and up to \$25M in milestones, plus royalties; the second is expected to generate revenues of up to \$900,000 over the coming months (4/2)

Biotech Co.* (Country; Symbol)	Pharma Co. (Country)	Type/Product Area	Terms/Details (Date)
Geneart AG (Germany; PK:GNRTF)	Sanofi-Pasteur (France)	Contract for Geneart's contribution to a European Union project, titled "New HIV Vaccines Inducing Broadly Reactive Neutralizing Antibodies," which is coordinated by Sanofi-Pasteur	Geneart develops and synthesizes the needed gene constructs for the efficient production of vaccine candidates (3/17)
Genstruct Inc.*	Pfizer Inc.	Master research agreement designed to cover current and future collaborations	The first deal will be in the area of preclinical drug safety, with an initial focus on a systems biology analysis of underlying mechanisms of drug-induced liver injury (2/20)
HistoRx Inc.*	Eli Lilly and Co.	Three-year agreement to make the HistoRx AQUA technology for tissue biomarker analysis widely available to Lilly researchers and clinicians	The deal expands the scope of a 2005 collaboration to apply the technology to Lilly development programs (3/26)
Holmes Biopharma Inc. (OTC BB:HLMB)	Large pharmaceutical company (East Asia)	Contract for a Phase I at Holmes' subsidiary in Omaha, Qualia Clinical Services	The contract is worth \$1.2M (4/16)
Iomai Corp. (IOMI)	Merck and Co.	Agreement to conduct proof-of-principle preclinical studies evaluating the use of the Iomai needle-free immunostimulant patch	Merck has first option to negotiate an exclusive license (4/3)
Jerini Ophthalmic (Germany; BEJ14)	PR Pharmaceuticals	License and development agreement focusing on the development of sustained-release formulations for a range of ophthalmic indications, including JOI's lead drug candidates for the treatment of age-related macular degeneration	JOI will pay an undisclosed up-front payment, along with milestone payments and royalties (4/11)
Juvaris BioTherapeutics Inc.*	Bayer Health-Care AG (Germany)	Agreement granting access to Juvaris' veterinary mono-immunotherapy and vaccine technology	The license is worldwide in scope (3/4)

Biotech Co.* (Country; Symbol)	Pharma Co. (Country)	Type/Product Area	Terms/Details (Date)
Kamada Ltd. (Israel; TASE:KMDA)	PARI Pharma GmbH (Germany)	Two agreements, one for aerosolized AAT in cystic fibrosis and bronchiectasis, in addition to alpha-1 antitrypsin deficiencies, and one for the supply of eFlow	The long-term supply agreement for eFlow is for the marketing, distribution and commercialization of AAT (2/25)
Lorus Therapeutics Inc. (Canada; AMEX:LRP)	Zor Pharmaceuticals LLC (subsidiary of Zoticon Bioventures Inc.)	Exclusive multinational license agreement to further develop and commercialize Virulizin	The initial clinical development will be in advanced pancreatic cancer; GeneSense will be entitled to payments in excess of \$10M upon achievement of various milestones and royalties that vary from 10% to 20% depending on sales and certain adjustments (4/9)
Marcadia Biotech Inc.*	Merck & Co. Inc.	Collaboration to jointly discover, develop and commercialize therapies targeting the glucagon and related receptors to treat diabetes and obesity	Merck will gain a worldwide license to certain Marcadia development candidates and intellectual property, in exchange for an initial up-front fee, as well as payments for exclusivity and ongoing collaborative research; Marcadia also will be eligible to receive future milestone and royalty payments and has an option for co-promotion (3/6)
MethylGene Inc. (Canada; TSX:MYG)	Otsuka Pharmaceutical Co. Ltd.	Worldwide deal to develop small-molecule kinase inhibitors to treat ocular diseases, such as macular degeneration	The deal is worth more than \$50M, including \$2M up front and at least \$1.875M in research funding for the initial 18 months of the partnership; MethylGene could receive up to \$50.5M more depending on certain milestones (3/27)
Migami Inc. (PK:MIGA)	Migami Korea Ltd.	Sublicensing agreement to several peptide molecules related to alpha-melanocyte-stimulating hormones to Migami Korea Ltd.	The deal includes a \$1.5M payment and anticipated royalties; it specifies South Korea as the territory (3/19)
Molecular Targeting Technologies Inc.*	Bexion Pharmaceuticals LLC	Collaboration to develop a nanovesicle for molecular imaging of tumors	Financial terms were not disclosed (4/22)
Neuralstem Inc. (AMEX:CUR)	CJ CheilJedang Corp. (unit of CJ Group; Korea)	Agreement under which CJ purchased an option to negotiate for the exclusive license to Neuralstem's stem cell products and technology, after the company completes a successful human clinical trial	CJ has purchased \$2.5M worth of Neuralstem stock at \$4.063 per share; CJ exclusive markets will include Korea, Indonesia, the Philippines, Malaysia, Singapore and Vietnam, with a first right of negotiation for China and Japan (2/20)

Biotech Co.* (Country; Symbol)	Pharma Co. (Country)	Type/Product Area	Terms/Details (Date)
NeuroSurvival Technologies Ltd.*	Sigma-Aldrich Corp.	Licensing agreement for a leading marker for molecular imaging of apoptosis in vitro and in vivo in animals	Financial terms were not disclosed (2/26)
NextGen Bioscience Inc. (UK; OTC BB:NXGB)	Beckpharma Ltd.	Collaboration to focus on the sourcing of cancer treatments, and possibly extending into therapeutic areas	NextGen forms collaborations to achieve breakthroughs in anticancer treatments and then licenses patented drug product candidates to pharmaceutical and biotechnology companies (2/14)
Novavax Inc. (NVAX)	Graceway Pharmaceuticals LLC	Agreement for the sale of all of Novavax's assets related to Estrasorb to treat vasomotor symptoms associated with menopause in North America	The deal also includes a supply agreement for the product; Novavax will retain the rights to commercialize Estrasorb in other parts of the world (2/19)
Novozymes AS (UK; LSE:NVZ)	CSL Behring (Australia)	Exclusive worldwide licensing agreement for its albumin fusion technology, albufuse	The license will enable CSL Behring to use albufuse technology for research, development and commercialization of novel biotherapeutic products (3/31)
Ophthaltec Ltd.*	GlaxoSmithKline plc (UK)	Agreement for Ophthaltec to provide specialist development services to GSK in ophthalmology	Further details were not disclosed (2/13**)
Pacific Biometrics Inc. (OTC BB:PBME)	Undisclosed multinational pharmaceutical company	Contracts to provide laboratory data for a Phase I and Phase II metabolic disease program	PBI will provide testing of metabolic markers and gut hormones on samples; the contracts are worth \$800,000 (4/1)
PsychoGenics Inc.*	Dainippon Sumitomo Pharma Co. Ltd. (Japan)	Drug discovery agreement to screen selected compounds using PsychoGenics' drug discovery systems to identify new therapies for central nervous system disorders	Dainippon Sumitomo is investigating treatments for psychiatric conditions, including schizophrenia, depression, anxiety and cognitive disorders (3/4)
Receptor Logic Ltd.*	Sanofi Pasteur Inc. (vaccines division of Sanofi-Aventis Group; France)	Partnership to develop T-Cell Receptor Mimics for vaccine research	Receptor Logic will create custom TCRm in support of Sanofi Pasteur's vaccine programs (2/27)

Biotech Co.* (Country; Symbol)	Pharma Co. (Country)	Type/Product Area	Terms/Details (Date)
Regulus Therapeutics LLC (joint venture between Alnylam Pharmaceuticals Inc., ALNY, and Isis Pharmaceuticals Inc., ISIS)	GlaxoSmithKline plc (UK)	Development agreement for four microRNA-targeted therapies for inflammatory diseases	Regulus gets \$20M up front and could earn up to \$144.5M in milestones for each of the four therapies, as well as royalties on sales; total value is \$600M (4/17)
Repligen Corp. (RGEN)	Bristol-Myers Squibb Co.	Agreement to settle a patent infringement lawsuit regarding Orencia to treat rheumatoid arthritis	BMS will make an initial payment of \$5M and pay royalties on the U.S. net sales of Orencia for any clinical indication at a rate of 1.8% for the first \$500M of annual sales, 2% for the next \$500M of annual sales and 4% of U.S. annual sales in excess of \$1B through Dec. 31, 2013 (4/8)
Salix Pharmaceuticals Ltd. (SLXP)	Dr. Falk Pharma GmbH (Germany)	Licensing agreement for a family of budesonide products, including a budesonide gastro-resistant capsule	Salix will make up-front and regulatory milestone payments to Dr. Falk, with the majority of the milestones contingent upon regulatory approval; Salix also will make royalty payments on net sales (3/13)
Singulex Inc.*	Novartis AG (Switzerland)	Singulex added Novartis as a collaborator in its Erenna Technology Access Program	Financial terms were not disclosed (3/6)
Sirion Therapeutics Inc.*	Bridge Pharma Inc.	Exclusive licensing agreement for the worldwide rights to develop and market topical ophthalmic formulations containing Bridge's norketotifen	Sirion will have the right to manufacture, sell and distribute norketotifen for ocular use either alone or in combination with other drugs (2/20)
StemCyte Inc.*	Cadila Pharmaceuticals (India)	Joint venture in India with Apollo Hospitals to provide stem cell therapies derived from umbilical cord blood to treat patients with certain malignant blood disorders, including leukemia, lymphoma and myeloma, as well as inherited disorders and immune deficiency diseases	StemCyte India Therapeutics also will participate in clinical studies to develop cell therapies for other unmet clinical needs (3/4)
Sunset Molecular Discovery LLC*	Sigma-Aldrich	Partnership to add 1,300 bioactive small molecules to Sigma-Aldrich's gene-based search tool called Your Favorite Gene	The tool provides data on the functional relationship between bioactive small molecules and genes for researchers to identify Sigma-Aldrich products associated with their genes of interest (3/27)

Biotech Co.* (Country; Symbol)	Pharma Co. (Country)	Type/Product Area	Terms/Details (Date)
TPG Biotechnology* (Japan)	JCR Pharmaceuticals Co. Ltd. (Japan)	Agreement to fund the late-stage clinical development of two drug candidates: JR-013 to treat renal anemia in dialysis patients, and Growject to treat short stature in children with growth hormone deficiency and Turner's Syndrome	TPG Biotech will fund the development of the drugs, and in return will receive milestone payments, royalties and warrants to purchase JCR's common stock (3/12)
Transgenomic Inc. (OTC BB:TBIO)	Two major pharmaceutical companies	Agreements for three Phase II trials, representing more than \$500,000 in the first half of 2008	Further details were not disclosed of the new contracts (3/6)
Transition Therapeutics Inc. (TTHI)	Eli Lilly and Co.	Agreement for rights to Transition's gastrin-based therapies for diabetes	Transition will receive \$7M in an up-front payment and up to \$130M in development and sales milestones; Lilly gets worldwide rights to develop and commercialize Transition's gastrin-based therapies, including lead compound TT-223 (3/14)
Valeant Pharmaceuticals International (NYSE:VRX)	Invida Pharmaceutical Holdings Pte. Ltd.*	Agreement for Valeant to sell its Asia Pacific operations to Invida for \$37.8M in cash	Invida is acquiring all of Valeant's licensing rights and commercial operations in the Asia Pacific for products currently marketed in 12 areas, including Singapore, the Philippines, Taiwan, Korea and China; some product rights in Japan also are included (3/3)
Verus Pharmaceuticals Inc.*	Sciele Pharma Inc.	Agreement for Sciele to acquire the Twinject epinephrine auto-injector for the treatment of severe allergic reactions and anaphylaxis, as well as certain other related Verus products under development	Sciele acquired the product for \$29M, and Verus may receive additional payments related to milestone achievements (3/13)
Zymenex AS* (Denmark)	Shire plc (UK)	Agreement for Shire to acquire a Phase I/II drug candidate, Metazym, for the rare disease metachromatic leukodystrophy	The deal gives Shire global rights for \$135M; it includes no royalties or other downstream payment obligations (4/24)

Notes:

The information in the chart does not cover agricultural agreements or those between biotech companies.

* Private companies are indicated with an asterisk. ** Denotes the date the item ran in *BioWorld International*.

Unless otherwise noted, stock symbols listed are on the Nasdaq market.

AMEX = American Stock Exchange; ASX = Australian Stock Exchange; BE = Berlin Stock Exchange; FSE = Frankfurt Stock Exchange; LSE = London Stock Exchange; NYSE = New York Stock Exchange; OTC BB = Over-the-Counter Bulletin Board; PK = Pink Sheets; SSE = Stockholm Stock Exchange; TASE = Tel Aviv Stock Exchange; TSX = Toronto Stock Exchange.

Manufacturing, Marketing And Distribution Agreements Between Biotech And Pharmaceutical Companies: Feb. 14 - April 24, 2008#

Biotech Co.* (Country; Symbol)	Pharma Co. (Country)	Type/Product Area	Terms/Details (Date)
Advanced Cell Technology Inc. (OTC BB: ACTC)	Biologics Delivery Systems Group of the Cordis Corp. (unit of Johnson & Johnson)	Supply agreement for catheters for use in ACT's Phase II trial of its myoblast therapy in heart failure	Financial terms were not disclosed (3/5)
Akorn Inc. (AKRX)	CSL Ltd.	Agreement for Akorn to market and distribute pre-filled syringes and multidose vials of the seasonal influenza vaccine Afluria on behalf of CSL	Terms were not disclosed (2/21)
Akorn Inc. (AKRX)	Unnamed U.S. ophthalmic company	Five-year commercial manufacturing and supply agreement for over-the-counter eye care products	Akorn will be responsible for the exclusive manufacturing and supply of the products (3/24)
Alnylam Pharmaceuticals Inc. (ALNY)	Shanghai GenePharma Co. (China)	Nonexclusive worldwide license agreement to manufacture and provide RNAi research products and services under the Kreutzer-Limmer patent family	The agreement covers fundamental aspects of the structure and uses of RNAi-related mechanisms and products, including their use to mediate RNAi in mammalian cells (3/20)
Alopxx Pharmaceuticals LLC*	Laureate Pharma	Manufacturing contract to produce Alopxx's mAb F598 antibody for the treatment and prevention of <i>Staphylococcus aureus</i> infections	Terms of the agreement were not disclosed (4/10)
Atlas Antibodies AB* (Sweden)	Sigma-Aldrich Corp.	Partnership to distribute Prestige Antibodies, which were developed by the Human Proteome Resource, to the proteomics and cell biology research communities	Sigma-Aldrich gets exclusive distribution rights in the U.S. and all regions outside of Europe, with co-exclusive rights in Europe (2/18)
BioAlliance Pharma SA (France; PARIS:BIO)	Handok Pharmaceuticals (Korea)	Exclusive licensing agreement for commercialization rights in Korea, Taiwan, Singapore and Malaysia for BioAlliance Pharma's muco-adhesive antifungal therapy Loramyc	Handok plans to launch Loramyc in 2010; the deal includes \$1.5M up front and a \$1.5M payment on the first sale in Korea, as well as up to \$9M in sales milestones, and a double-digit royalty (3/31)

Biotech Co.* (Country; Symbol)	Pharma Co. (Country)	Type/Product Area	Terms/Details (Date)
China Biopharma Inc. (China; OTC BB: CBPC)	Beijing Keyuan Xinhai Pharmaceutical Co. (China)	Agreement to launch newly approved pharmaceutical products made by international pharmaceutical companies	China Biopharma will distribute the products, such as human vaccines, throughout China using its sales network and distribution logistics; no financial terms were disclosed (3/26)
Commonwealth Biotechnologies Inc. (CBTE)	New Zealand Pharmaceuticals Ltd. (New Zealand)	Global alliance to provide a suite of small-molecule chemistry products for the drug discovery and development market	CBI's subsidiary Exelgen Ltd. will provide customers with research-grade products and services and NZP will supply identified lead candidates for preclinical applications through to cGMP products for clinical and therapeutic applications (4/15)
Cytheris SA* (France)	Laureate Pharma Inc.	Contract manufacturing agreement for Interleukin-7, a fully glycosylated recombinant human protein and critical growth factor for immune T-cell recovery, for use in clinical trials being conducted in HIV, HCV and cancer	Terms were not disclosed (3/27)
DOR BioPharma Inc. (DORB)	BL&H Co. Ltd. (South Korea)	Letter of intent for BL&H to act as DOR's sponsor for a named patient program aimed at getting orBec to patients suffering acute gastrointestinal graft-vs.-host disease in South Korea	DOR will share revenues generated by sales of orBec through the NPP and will manufacture and supply the product to BL&H, while BL&H will handle all distribution costs in South Korea (2/18)
Endo Pharmaceuticals Inc. (ENDP)	Novartis SA (Switzerland)	Licensing deal to obtain exclusive U.S. marketing rights to Voltaren Gel, which gained approval in October for pain associated with osteoarthritis	Endo will make an up-front cash payment of \$85M, and would owe Novartis a one-time milestone of \$25M upon annual sales exceeding \$300M; Novartis also is entitled to royalties on net sales and will supply the product (3/5)
GenOway SA (France; PARIS: ALGEN)	Eisai Co. Ltd. (Japan) and Boehringer Ingelheim Pharmaceuticals Inc. (Germany)	Two separate agreements: one with Eisai to provide customized, genetically modified mouse lines and ready-for-use animal models; and one with Boehringer to supply for five years customized rat lines	Financial terms of the agreements were not disclosed (4/9**)
Indevus Pharmaceuticals Inc. (IDEV)	Orion Corp.	License, supply and distribution agreement for Vantas subcutaneous implant throughout Europe as well as certain other countries	Orion will pay Indevus a \$7M up-front payment and various contingent payments related to approvals and sales thresholds, which total up to \$14M; Indevus has agreed to supply Vantas to Orion at a predetermined transfer price (4/4)

Biotech Co.* (Country; Symbol)	Pharma Co. (Country)	Type/Product Area	Terms/Details (Date)
Medivir AB (Sweden; SSE: MVIRB)	GlaxoSmithKline plc (UK)	Co-promotion agreement to market in Sweden a portfolio of dermatology and infectious disease products, as well as the smoking-cessation aid Zyban	Medivir will receive a share of proceeds from sales above an agreed baseline (4/16**)
Millennium Biotechnologies Inc. (OTC BB:MBTG)	Ferring Inc. (a division of Ferring SA; Switzerland)	Five-year exclusive distribution agreement for Resurgex, Millennium's nutritional formula for immunocompromised patients	Ferring gains exclusive rights to use the Resurgex trademarks and to sell the Resurgex line of products in Canada; Ferring will be responsible for the marketing, distribution and sales efforts throughout Canada (3/24)
MorphoSys AG (Germany; FSE:MOR)	Sigma-Aldrich Corp.	Collaboration to design, produce and distribute recombinant research antibodies using MorphoSys's HuCAL Gold technology	Sigma-Aldrich will offer the antibodies for use in research applications through its Internet sales platforms (2/27)
Poniard Pharmaceuticals Inc. (PARD)	W.C. Heraeus GmbH (Germany)	Agreement for the commercial manufacture and supply of picoplatin active pharmaceutical ingredient	Heraeus will manufacture picoplatin API and prepare to ship commercial quantities of picoplatin by 2009 (3/26)
Pro- Pharmaceuticals Inc. (AMEX:PRW)	YIACO Medical Co. (Kuwait)	Letter of intent for the commercialization of Davanat for the treatment of colorectal and biliary cancer	The drug currently is in two Phase II trials for first-line treatment of patients with colorectal and biliary cancers (4/7)
ValiRx (UK; LSE:VAL)	Clarity Imaging International Inc.	Letter of intent to secure the distribution rights Clarity holds for the human papillomavirus Geneotype Diagnostic Test Kit for the European Economic Area and Switzerland	The kit currently tests for 39 subtypes of HPV (2/20**)
Xenomix Inc. (PK:YNOM)	Warnex Medical Laboratories	Agreement for nonexclusive rights in Canada to offer NPML testing as a laboratory service for the diagnosis, stratification and monitoring of acute myeloid leukemia patients	Financial terms were not disclosed (2/22)

Notes:

The information in the chart does not cover agricultural agreements or those between biotech companies.

* Private companies are indicated with an asterisk.

Unless otherwise noted, stock symbols listed are on the Nasdaq market. AMEX = American Stock Exchange; FSE = Frankfurt Stock Exchange; LSE = London Stock Exchange; OTC BB = Over-the-Counter Bulletin Board; PK = Pink Sheets; SSE = Stockholm Stock Exchange.

Financing

Continued from page 2

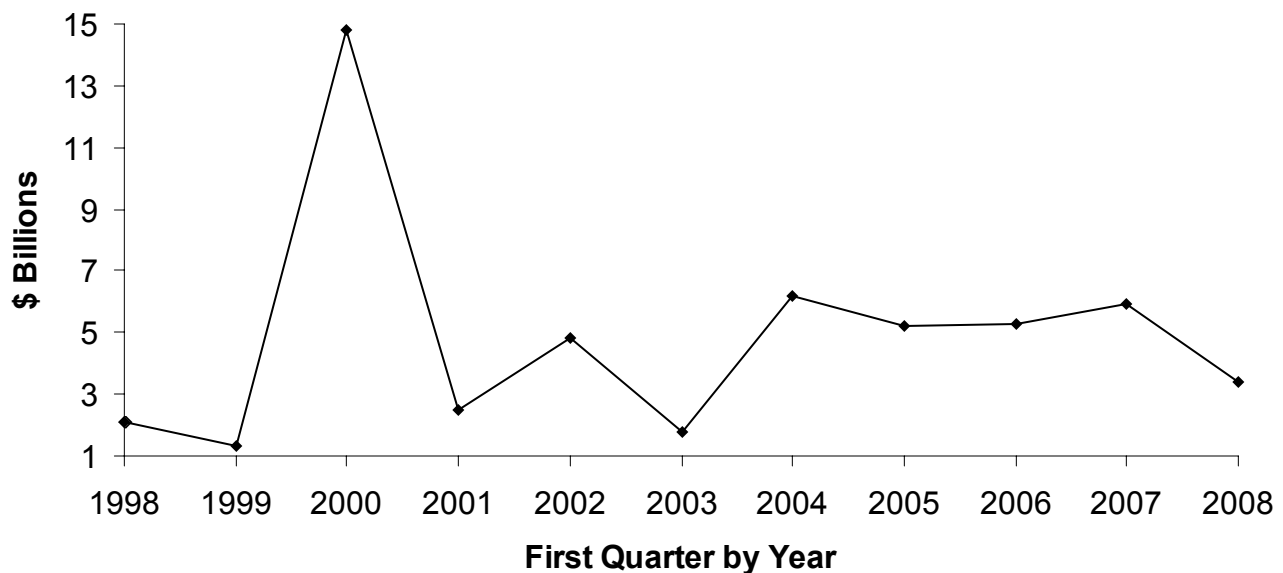
One positive aspect of the financial troubles faced by many biotech companies today, Giannetto said, is that the competitors are feeling the same pinch. Like on the television reality show "Survivor," all contestants are deprived of food and modern conveniences and are forced to use their strength, speed and agility or their brains to "outthink their opponents."

"It's still a matter of how the individual leverages their assets," he said, which is basically what CV Therapeutics did with Lexiscan and what Vernalis did with frovatriptan.

But for the majority of biotech companies that do not have a late-stage or commercialized product, the public markets may be their only option.

"Unfortunately," Schmidt said, "a lot of companies don't have assets other than their share price, and that's about the only thing they can draw on." ■

First Quarter Biotech Money Raised: 1998-2008



Tips for Struggling Through Slow Times

In their book, *The Performance Power Grid: The Proven Method To Create and Sustain Superior Organizational Performance*, Anthony Zecca and David Giannetto offer these tips to business owners struggling through the economic slowdown:

- Remember that competitors are suffering, too. Have a strong value proposition, manage in a fiscally responsible manner, provide great service and keep important customers.
- Focus your employees by creating a "momentary unifying factor" so you can move projects along faster and cheaper than in the past.
- When competitors shut down, increase sales, marketing and advertising efforts to reach the newly available customers.
- If you are a public company, be transparent and realistic: "We forget that people respect honesty," Giannetto said. "People can accept bad news honestly and sincerely delivered and it isn't the bad news that has people angry or demotivated. It's the deception that goes along with it."
- If you own a commercial facility, file for a reduction in taxes on the building.

Biotech – Big Pharma Collaborations: Modified And Terminated Agreements, Feb. 14 - April 24, 2008[#]

I. MODIFIED AGREEMENTS

Biotech Co.* (Country; Symbol)	Pharma Co. (Country)	Change from original agreement	Terms/Details (Date)
Affymetrix Inc. (AFFX)	NimbleGen Systems Inc. (subsidiary of F. Hoffmann-La Roche Ltd.; Switzerland)	Expanded license for a number of patents originally granted in October 2006	The expanded license provides certain diagnostic rights for array-based DNA copy number analysis and array-based resequencing, in addition to covering the manufacture, use and sale of nucleic acid microarrays and related products and services in the research field (3/13)
BioCurex Inc. (Canada; OTC BB:BOCX)	Unnamed licensee	Amended April 2005 license agreement relieving the unnamed licensee of future due diligence obligations to commercialize or perform further research and development on BioCurex's RECAF technology	It also relieves the licensee of its obligation to pay the annual minimum royalty; BioCurex will continue the development of a chemiluminescence-based serum RECAF test in its own facilities, and the licensee may resume research and development work and commercialize products incorporating the RECAF technology as per the original agreement (3/21)
Metabasis Therapeutics Inc. (MBRX)	Merck & Co. Inc.	Extended collaboration for an additional year, through June 2009	The two companies are working to identify small-molecule therapeutics with the potential to treat several diseases, including Type II diabetes and other metabolic diseases, by activation of an enzyme called AMP-activated Protein Kinase (4/23)
MorphoSys AG (Germany; FSE:MOR)	Astellas Pharma Inc. (Japan)	Extended March 2007 collaboration until March 2012 under which Astellas has access to MorphoSys' antibody library HuCAL Gold at its research site in Tsukuba, Japan	The extension includes an option for Astellas to develop and commercialize HuCAL-derived therapeutic antibodies, in which case MorphoSys would receive exclusive license fees, milestone payments and royalties (2/21)
Neurobiological Technologies Inc. (NTII)	Merz Pharmaceuticals GmbH (Germany)	Amended its license and cooperation agreement with Merz and Children's Medical Center Corp. relating to memantine for Alzheimer's disease	Modified terms call for the discontinuation of paying royalties on sales of memantine outside of the U.S. and provide for a staged reduction in the royalty rates to be paid to the company and CMCC on sales of memantine in the U.S. (2/26)
Theravance Inc. (THRX)	GlaxoSmithKline plc (UK)	Expanded Horizon program into development of a next-generation combination treatment for patients with chronic obstructive pulmonary disorder	They will start a large Phase IIb study of GW642444 (2/26)

Biotech Co.* (Country; Symbol)	Pharma Co. (Country)	Change from original agreement	Terms/Details (Date)
Alkermes Inc. (ALKS)	Eli Lilly and Co.	Terminated agreement for the development and commercialization of AIR Inhaled Insulin, which is in Phase III development for diabetes	Lilly pulled out because there appeared to be no prospect of a new drug application, and the market did not seem interested in an inhaled product as shown by the sales of Exubera (3/7)
Curis Inc. (CRIS)	Wyeth Pharmaceuticals	Terminated agreement focused on the preclinical development of small-molecule and protein Hedgehog agonists for stroke and cardiovascular indications	Wyeth did not see enough promise in the signaling pathway to continue funding its development (3/10)
Genfit (France; PARIS: ALGFT)	Sanofi-Aventis	Terminated drug development agreement for AVE8134 and AVE0847 for mixed dyslipidemia and Type II diabetes	Sanofi-Aventis discontinued development due to a prioritization of its product portfolio (4/9**)
Human Genome Sciences Inc. (HGS)	GlaxoSmithKline plc (UK)	Terminated agreement for TRAIL receptor antibodies HGS-ETRI and HGS-ETR2	Human Genome reacquired rights to the antibodies in return for a reduction in royalties due to HGS if Syncria is commercialized (4/17)
Nektar Therapeutics Inc. (NKTR)	West Pharmaceutical Services Inc.	Concluded agreement related to the manufacture and assembly of components for the Exubera inhalable insulin device	Production of the device was suspended in October 2007 following Pfizer Inc.'s decision to discontinue marketing the product (2/14)
Novacea (NOVC)	Schering-Plough Corp.	Terminated collaboration to develop an oral anticancer agent for the treatment of androgen-independent prostate cancer	Schering-Plough did not say why it terminated the agreement (4/9)
TorreyPines Therapeutics Inc. (TPTX)	Eisai Co. Ltd.	Ended discovery collaboration for the gamma-secretase modulator	The parties could not agree on terms to continue the collaboration; TorreyPines will seek a new partner (2/14)

Notes:

The information in the chart does not cover agreements between biotech companies or agricultural agreements.

* Private companies are indicated with an asterisk.

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FSE = Frankfurt Stock Exchange; OTC BB = Over-the-Counter Bulletin Board.

BioWorld Stock Report For Public Biotechnology Companies

Company	Symbol	Close 4/18	Close 4/25	%Change WK	%Change YTD	Vol (000)	Company	Symbol	Close 4/18	Close 4/25	%Change WK	%Change YTD	Vol (000)
Aastrom Biosci	ASTM	0.4	0.41	2.50	-21.15	2061	deCODE genetics	DCGN	1.16	1.42	22.41	-61.41	1141
Acadia Pharma	ACAD	8.22	8.01	-2.55	-27.64	931	Dendreon	DNDN	5.85	5.55	-5.13	-10.77	8801
Accelrys	ACCL	5.44	5.3	-2.57	-29.61	226	DepoMed	DEPO	3.23	3.42	5.88	4.91	480
Accentia Bio	ABPI	1.21	1.15	-4.96	-64.94	1423	Discovery Labs	DSCO	2.5	2.74	9.60	27.44	5209
Access Pharma	ACCP	2.25	2.6	15.56	-20.00	50	DOR BioPharma	DORB	0.15	0.15	0.00	-11.76	758
Achillion	ACHN	4.05	3.96	-2.22	-20.64	22	DOV Pharma	DOVP	0.05	0.06	20.00	-25.00	623
Acorda Therap	ACOR	20.06	22.34	11.37	1.73	2203	Drax Health	DRAX	5.93	5.92	-0.17	46.17	2836
Acusphere	ACUS	0.68	0.71	4.41	9.23	975	DURECT	DRRX	5.21	4.57	-12.28	-28.93	1135
AEterna Zentaris	AEZS	1.22	1.27	4.10	-17.53	100	Dyax	DYAX	4.4	4.06	-7.73	10.93	2068
Affymax	AFFY	13.62	15.78	15.86	-29.43	283	Emergent BioSol	EBS	8.99	9.11	1.33	79.68	743
Affymetrix	AFFX	11.16	10.68	-4.30	-53.85	20139	Emisphere Tech	EMIS	1.51	1.51	0.00	-44.69	174
Albany Molecular	AMRI	11.76	11.91	1.28	-17.18	384	EntreMed	ENMD	0.82	0.89	8.54	-25.83	1296
Alexion Pharma	ALXN	68.16	69.11	1.39	-7.89	2502	Enzo Biochem	ENZ	8.29	8.56	3.26	-32.81	599
Alexza Pharma	ALXA	6.75	6.71	-0.59	-17.06	327	Enzon Pharma	ENZN	9.02	9.15	1.44	-3.99	1560
Alkermes	ALKS	11.41	11.43	0.18	-26.68	4151	EpiCept	EPCT	0.51	0.47	-7.84	-62.99	55
Alliance Pharma	ALLP	0.03	0.03	0.00	50.00	535	EXACT Sciences	EXAS	2.37	2.39	0.84	-25.78	533
Allos Therapeutics	ALTH	6.16	6.12	-0.65	-2.70	530	Exelixis	EXEL	7.84	7.93	1.15	-8.11	3477
Alnylam Phama	ALNY	24.47	25.04	2.33	-13.89	2117	Favril	FVRL	1.56	1.65	5.77	5.77	159
Alseres	ALSE	2.3	2.28	-0.87	-24.00	26	Genaera	GENR	1.35	1.27	-5.93	-36.50	35
Amgen	AMGN	43.07	42.25	-1.90	-9.02	35525	Genelabs Tech	GNLB	0.84	0.85	1.19	-33.07	676
Amylin Pharma	AMLN	31.41	28.54	-9.14	-22.86	17338	Genentech	DNA	72.72	71.97	-1.03	7.08	16592
Anesiva	ANSV	3.65	3.43	-6.03	-31.40	179	Genex Biotech	GNBT	1.14	1.06	-7.02	-34.57	3045
Antigenics	AGEN	2.44	2.22	-9.02	8.82	1422	Genitope	GTOP	0.18	0.09	-50.00	-87.84	4965
Arena Pharma	ARNA	6.1	5.76	-5.57	-26.44	4935	Genomic Health	GHDX	18.74	19.99	6.67	-11.70	559
Ariad Pharma	ARIA	3.18	3.07	-3.46	-27.76	1958	Gen-Probe	GPRO	53.2	54.3	2.07	-13.71	1677
ArQule	ARQL	3.75	3.86	2.93	-33.45	1377	GenVec	GNVC	2	1.98	-1.00	34.69	2264
Array BioPharma	ARRY	6.8	6.43	-5.44	-23.63	821	Genzyme	GENZ	74.74	72.49	-3.01	-2.62	14612
AutoImmune	AIMM	1.75	1.8	2.86	9.09	10	Geron	GERN	5.14	5.05	-1.75	-11.09	2313
Auxilium Pharma	AUXL	28.87	30.29	4.92	1.00	2244	Gilead Sciences	GILD	51.76	51.4	-0.70	11.71	33428
Avalon Pharma	AVRX	1.8	2	11.11	-38.46	106	GTC Biotherap	GTCB	0.56	0.6	7.14	-31.03	815
Avanir	AVNR	1.14	1.23	7.89	-2.38	722	GTx	GTXI	14.98	17.25	15.15	20.21	2246
Avax Tech	AVXT	0.09	0.1	11.11	0.00	364	Helicos	HLCS	6.88	6.23	-9.45	-40.33	69
AVI BioPharma	AVII	1.65	1.5	-9.09	6.38	896	Hemisphere	HEB	0.68	0.69	1.47	-10.39	263
Avigen	AVGN	2.8	2.75	-1.79	-35.29	62	Human Genome	HGSI	6.07	6.38	5.11	-38.89	9458
Barrier Therap	BTRX	2.77	2.4	-13.36	-39.09	801	icagen	ICGN	1.45	1.52	4.83	-9.52	836
BioCryst Pharma	BCRX	4.26	3.77	-11.50	-39.00	433	Idera Pharma	IDRA	12.88	13.15	2.10	5.79	301
Biodel	BIOD	12.9	13.51	4.73	-41.84	283	IDEXX Lab	IDXX	48.43	54.19	11.89	-7.57	3465
Biodelivery Sci	BDSI	2.06	2.29	11.17	-21.84	191	Ilumina	ILMN	73.29	79.01	7.80	33.33	8896
Biogen Idec	BIIB	65	65.12	0.18	14.41	14928	ImClone Systems	IMCL	46.05	47.47	3.08	10.40	14023
Bioheart Inc.	BHRT	4.04	4.1	1.49	-21.90	31	Immtech Intl	IMM	0.92	0.93	1.09	-72.40	50
BioMarin Pharma	BMRN	33.93	34.76	2.45	-1.81	6087	ImmuCell	ICCC	3.34	3.08	-7.78	-13.24	2
Biomimetic Thera	BMTI	10.08	9.98	-0.99	-42.54	888	Immucor	BLUD	26.96	26.58	-1.41	-21.80	1915
Bruker BioSci	BRKR	15.12	12.28	-18.78	-7.67	8602	ImmunoGen	IMGN	3.64	3.45	-5.22	-16.87	217
Cadence Pharma	CADX	6.7	7.25	8.21	-51.21	521	Immunomedics	IMMU	2.79	2.88	3.23	24.14	1217
Caliper Life Sci	CALP	3.96	3.63	-8.33	-34.36	169	Incyte	INCY	10.53	11.22	6.55	11.64	3576
Cardiovascular	CVBTE	0.93	0.95	2.15	7.95	212	Indevus Pharma	IDEV	4.63	4.64	0.22	-33.24	2010
Cardium Therap	CXM	2.2	2.15	-2.27	-11.89	182	Infinity Pharma	INFI	6.99	7.35	5.15	-23.04	44
Catalyst Pharma	CPRX	3.51	3.5	-0.28	1.45	23	Inhibitex	INHX	0.65	0.64	-1.54	-17.95	111
Celera Genomics	CRA	15.47	13.09	-15.38	-17.52	4020	Inovio Biomedical	INO	0.91	0.92	1.10	3.37	151
Celgene	CELG	64.45	63.11	-2.08	36.57	13603	Insight Vision	ISV	0.6	0.62	3.33	-18.42	427
Cell Genesys	CEGE	3.46	3.93	13.58	70.87	10519	Insmid	INSM	0.68	0.75	10.29	-9.64	1681
Cellegy Pharma	CLGY	0.05	0.05	0.00	0.00	26	Inspire Pharma	ISPH	3.86	3.47	-10.10	-41.97	1723
CEL-SCI	CVM	0.68	0.66	-2.94	29.41	278	Integra LifeSci	IART	42.95	43.09	0.33	2.77	562
Cephalon	CEPH	63.12	62	-1.77	-13.60	8038	InterMune	ITMN	18.14	16.95	-6.56	27.16	1796
Cepheid	CPHD	20.32	19.85	-2.31	-24.67	3600	Introgen Thera	INGN	2.93	2.98	1.71	1.71	296
Cerus	CERS	6.45	6.09	-5.58	-6.45	530	Invitrogen	IVGN	86.29	92.03	6.65	-1.48	6895
Chelsea Therap	CHTP	4.92	4.62	-6.10	-37.14	51	ISIS Pharma	ISIS	16.89	11.99	-29.01	-23.87	19540
Cleveland Biolabs	CBLI	6	5.92	-1.33	-32.73	372	ISTA Pharma	ISTA	2.13	1.99	-6.57	-59.39	229
CombiMatrix	CBMX	10.35	11.05	6.76	45.78	171	Jazz	JAZZ	8.78	9.19	4.67	-37.48	99
Combinatorx Inc.	CRXX	3.74	3.59	-4.01	-19.14	201	Keryx Biopharma	KERX	0.53	0.46	-13.21	-94.52	2530
Compugen Ltd.	CGEN	2.1	2.24	6.67	40.00	101	Kosan Biosci	KOSN	1.99	1.89	-5.03	-47.50	681
Cortex Pharma	COR	0.74	0.72	-2.70	44.00	291	La Jolla Pharma	LJPC	1.75	1.98	13.14	-49.49	561
Critical Therap	CRTX	0.62	0.64	3.23	-49.61	418	Lexicon	LXRX	1.96	2.16	10.20	-28.71	999
Crucell N.V.	CRXL	18.56	18.97	2.21	14.69	195	LifeCell	LIFC	50.55	50.52	-0.06	17.19	6414
Cubist Pharma	CBST	19.71	20.9	6.04	1.90	4554	Lifecore Biomed	LCBM	16.98	16.98	0.00	17.51	0
Curis	CRIS	1.28	1.31	2.34	33.67	733	MacroChem	MACM	0.3	0.29	-3.33	-44.23	95
CV Therap	CVTX	8.85	9.12	3.05	0.77	6666	Martek Biosci	MATK	33.89	36.11	6.55	22.08	2752
Cyanotech Corp	CYAN	1.75	1.61	-8.00	15.00	44	Maxygen	MXYG	6.41	6.08	-5.15	-24.28	548
Cyclacel Pharma	CYCC	2.94	2.93	-0.34	-46.53	100	Medarex	MEDX	7.85	8.01	2.04	-23.13	4381
Cypress Biosci	CYPB	6.95	6.63	-4.60	-39.89	1214	MediciNova	MNOV	3.94	3.72	-5.58	-19.13	21
Cytogen	CYTO	0.6	0.61	1.67	15.09	941	Memory Pharma	MEMY	0.34	0.36	5.88	-35.71	618
Cytokinetics	CYTK	3.33	3.35	0.60	-29.18	876	Metabolix Inc.	MBLX	12.21	11.3	-7.45	-52.52	808
CytRx	CYTR	0.83	0.99	19.28	-65.14	2990	Micromet	MITI	2.07	2.02	-2.42	-1.94	130

Company	Symbol	Close 4/18	Close 4/25	%Change WK	Vol YTD (000)	Company	Symbol	Close 4/18	Close 4/25	%Change WK	Vol YTD (000)		
Millennium	MLNM	24.49	24.5	0.04	63.55	61990	Trinity Biotech	TRIB	3.82	3.65	-4.45	-46.40	316
Momenta Pharma	MNTA	11.56	13.25	14.62	85.57	2256	Trubion Pharma	TRBN	8.59	7.25	-15.60	-27.50	56
Monogram Biosci	MGRM	1.14	1.07	-6.14	-24.65	1924	Unigene	UGNE	1.44	1.53	6.25	-19.90	2902
Myriad Genetics	MYGN	41.63	41.29	-0.82	-11.05	1685	United Therap	UTHR	85.16	86.51	1.59	-11.41	3064
Nabi Biopharma	NABI	4.08	3.87	-5.15	7.20	1280	Vanda Pharma	VNDA	3.57	3.99	11.76	-42.01	3007
Nanogen	NGEN	0.4	0.42	5.00	16.67	1771	VaxGen	VXGN	0.48	0.45	-6.25	-18.18	435
Nastech Pharma	NSTK	2.59	1.4	-45.95	-63.16	4599	Vertex Pharma	VRTX	25.76	25.72	-0.16	10.72	17108
NeoPharm	NEOL	0.53	0.54	1.89	-8.47	196	Vical	VICL	3.51	3.52	0.28	-17.18	117
Neose Tech	NTEC	0.31	0.28	-9.68	-73.83	772	Vion Pharma	VION	1.4	1.24	-11.43	-77.45	304
Neurocrine Biosci	NBIX	5.57	5.65	1.44	24.45	964	VioQuest Pharma	VQPH	0.09	0.08	-11.11	-20.00	298
Neurogen	NRGN	1.25	1.2	-4.00	-65.22	279	ViroPharma	VPHM	9.48	9.46	-0.21	19.14	3039
NeurogesX	NGSX	3.64	3.22	-11.54	-49.37	41	XenoPort	XNPT	43.87	43.72	-0.34	-21.76	974
NitroMed	NTMD	1.21	1.28	5.79	26.73	224	XOMA Limited	XOMA	2.42	2.35	-2.89	-30.68	3416
North Am Sci	NASI	0.34	0.33	-2.94	10.00	87	ZioPharm	ZIOP	2.81	3	6.76	-15.25	129
Novacea	NOVC	2.88	2.86	-0.69	-4.03	123	ZymoGenetics	ZGEN	9.52	9.46	-0.63	-18.94	1206
Novavax	NVAX	2.37	2.44	2.95	-26.73	824							
NPS Pharma	NPSP	3.54	3.7	4.52	-3.39	708							
Omrix Biopharma	OMRI	15.46	15.57	0.71	-55.18	618							
Optimer Pharma	OPTR	6.19	6.65	7.43	-5.00	433							
OraSure Tech	OSUR	6.61	6.66	0.76	-25.08	714							
Orchid Biosci	ORCH	2.53	2.5	-1.19	-50.00	431							
Orex	OREX	11.5	11.41	-0.78	-19.93	375							
Oscient Pharma	OSCI	1.98	2	1.01	48.15	211							
OSI Pharma	OSIP	35.02	34.58	-1.26	-28.72	5287							
Osteotech	OSTE	4.22	4.58	8.53	-41.43	309							
OxIGENE	OXGN	1.86	1.66	-10.75	-33.33	196							
Oxis Intl.	OXIS	0.1	0.09	-10.00	28.57	294							
Pain Therap	PTIE	7.45	6.95	-6.71	-34.43	1191							
Palatin Tech	PTN	0.26	0.25	-3.85	25.00	413							
Peregrine	PPHM	0.43	0.38	-11.63	2.70	2251							
Pharmacopeia	PCOP	3.38	3.36	-0.59	-29.56	267							
Pharma Prdt Dev	PPDI	39.37	42.11	6.96	4.31	6329							
Pharmasset	VRUS	14.72	14.21	-3.46	5.26	1016							
Pharmion	PHRM	72.32	72.32	0.00	15.05	17925							
Pharmos	PARS	0.46	0.46	0.00	35.29	45							
Pharsight	PHST	4.83	4.67	-3.31	-17.20	3							
Poniard Pharma	PARD	3.78	3.82	1.06	-13.38	243							
Progenics Pharma	PGNX	6.88	13.4	94.77	-25.84	19965							
Protein Design	PDLI	13.86	13.43	-3.10	-23.34	16511							
QLT Inc.	QLTI	3.91	3.88	-0.77	-12.22	1705							
Regeneration	RTIX	10.18	10.31	1.28	18.78	1102							
Regeneron	REGN	19.8	20.91	5.61	-13.42	2000							
Renovis	RNVS	2.24	2.23	-0.45	-25.91	863							
Replidyne	RDYN	1.77	1.55	-12.43	-50.00	184							
Repligen	RGEN	5.4	5.66	4.81	-13.59	590							
Repros Therap	RPRX	8.99	9.3	3.45	-0.21	255							
Response Gen	RGDX	3.48	3.15	-9.48	-32.26	25							
Rigel Pharma	RIGL	19.23	22.18	15.34	-12.64	3337							
Salix Pharma	SLXP	6.25	6.81	8.96	-13.58	3838							
Sangamo Biosci	SGMO	11.62	12.9	11.02	-0.92	1657							
Santarus	SNTS	3.18	2.78	-12.58	1.09	2294							
Savient Pharma	SVNT	19.89	21.53	8.25	-6.27	6235							
SciClone Pharma	SCLN	1.95	1.81	-7.18	-12.14	293							
Seattle Genetics	SGEN	10.55	10.26	-2.75	-10.00	1361							
Senomyx	SNMX	6.65	6.21	-6.62	-17.09	815							
Sequenom	SQNM	5.45	5.65	3.67	-40.84	1216							
SGX Pharma	SGXP	1.23	1.3	5.69	-72.69	72							
SIGA Tech	SIGA	3.64	3.5	-3.85	13.64	546							
Simulations Plus	SLP	1.71	1.59	-7.02	-58.59	304							
Sirtis	SIRT	12.68	22.3	75.87	62.89	13484							
Somaxon Pharma	SOMX	4.56	4.68	2.63	-10.17	274							
Sonus Pharma	SNUS	0.37	0.39	5.41	-11.36	446							
Spectrum Pharma	SPPI	2.69	1.63	-39.41	-40.07	6905							
StemCells	STEM	1.41	1.59	12.77	6.00	3691							
Sunesis Pharma	SNSS	1.33	1.54	15.79	-22.61	69							
SuperGen	SUPG	2.46	2.71	10.16	-25.75	3252							
Synta Pharma	SNTA	7.01	6.64	-5.28	-0.90	396							
Tapestry Pharma	TPPH	0.03	0.03	0.00	-90.00	729							
Targacept	TRGT	7.23	7.48	3.46	-9.44	73							
Telik	TELK	2.59	2.25	-13.13	-35.16	677							
Tercica	TRCA	5.63	5.29	-6.04	-21.98	295							
Theravance	THRX	13.72	13.02	-5.10	-33.23	2434							
Third Wave Tech	TWTI	9.07	9.05	-0.22	-6.22	1018							
Titan Pharma	TTP	1.33	1.44	8.27	-12.20	325							
TorreyPines	TPTX	1.37	1.35	-1.46	-41.05	27							
Transgenomic	TBIO	0.49	0.47	-4.08	-12.96	263							

LONDON STOCK EXCHANGE

Company	Symbol	4/18	4/25	%WK	%YTD	Volume
Acambis	ACM	115	122	6.09	2.95	2123
Antisoma	ASM	27	25	-7.41	1.01	1251
Ark Therap	AKT	66.75	70	4.87	-25.33	642
Asterand	ATD	6.05	6.16	1.82	16.23	9
Neuropharma	NPH	175.5	174	-0.85	-2.79	12
Oxford Biomed	OXB	23	26.25	14.13	2.94	3231
Phytopharm	PYM	22	21.75	-1.14	-27.50	119
Protherics	PTI	51.5	46	-10.68	-18.94	1849
Puricore	PURI.L	25	25.75	3.00	-12.71	104
Renovo	RNVO	41	35.75	-12.80	-73.37	1669
SkyePharma	SKP	8.75	9.57	9.37	-21.88	7132
Vernalis	VER	5.5	6	9.09	-4.61	1394

Note: Prices are denoted in pence.

TORONTO STOCK EXCHANGE

Company	Symbol	4/18	4/25	%WK	%YTD	Volume
Adherex Tech	AHX	0.29	0.3	3.45	15.38	289
Allon Therap	NPC	0.97	0.95	-2.06	5.56	185
Angiotech	ANP	2.95	2.77	-6.10	-19.24	1037
Bioms Medical	MS	3.48	3.49	0.29	-10.28	477
Bioniche Life Sci	BNC	0.84	0.8	-4.76	-11.11	218
Cangene	CNJ	5.3	5.11	-3.58	-26.90	472
Cardiome	COM	8.1	8.96	10.62	0.56	855
ConjuChem Bio	CJB	0.09	0.09	0.00	-30.77	561
Hemosol	HML	0.03	0.05	66.67	66.67	61
IBEX Techno	IBT	0.06	0.06	0.00	0.00	6
Isotechnika	ISA	0.99	0.95	-4.04	-7.77	699
Lorus Therap	LOR	0.18	0.16	-11.11	-20.00	545
Medicure	MPH	0.08	0.08	0.00	-92.08	1743
Neurochem	NRM	2	2	0.00	-9.09	289
Nventa Bio	NVN	0.08	0.09	12.50	12.50	1379
Oncolytics Bio	ONC	1.88	1.98	5.32	16.47	111
Resverlogix	RVX	13.43	12.25	-8.79	-16.10	285
Tekmira	TKM	1.19	1.13	-5.04	21.51	196
Thallion Pharma	TLN	0.47	0.4	-14.89	0.00	95
Theratech	TH	7.94	7.65	-3.65	-29.69	419
Wex Pharma	WXI	0.47	0.51	8.51	34.21	58
YM Biosciences	YM	1.03	0.97	-5.83	-26.52	78

Note: Prices are denoted in Canadian dollars.

NOTES:
 Trading volumes for Nasdaq, Amex and NYSE are recorded as the total number of shares traded (in thousands) on a weekly basis (cumulative Monday through Friday); the weekly and YTD % changes are from IPO completion, where applicable.
Average Percent Change Week: -0.30%
 Range: -50.00% to +94.77%; Number Of Companies: 237 (does not include LSE or TSE; not market weighted)
Average Percent Change YTD: -13.98%
 Range: -94.52% to +85.57%; Number Of Companies: 237 (does not include LSE or TSE; not market weighted)