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Quarter In Review

Industry benefits from healthcare reform and robust general markets

By Peter Winter

Biotech racked up impressive gains for both the month of March and the first quarter of 2010. The Burrill Biotech Select Index posted a 3.7 percent jump in value in March and an 8 percent overall gain for the first quarter of 2010. The Dow Jones Industrial Average also performed well in March as it ended the month up 5.5 percent and 4.5 percent for the first quarter. The Nasdaq Composite Index performed even better—up 7 percent and 5.7 percent in the first quarter.

While the sector benefitted from the robust general markets during the first three months of the year, the passage of landmark U.S. healthcare reform legislation was also a contributing factor. Although investors initially gravitated to investing in Medicaid insurers and HMOs in the wake of the passage of the healthcare reform bill, the prospect of adding

millions of new paying patients is good news for the biopharmaceutical industry.

Strong performances from Alexion, Amylin Pharmaceuticals, and Illumina helped boost The Burrill Biotech Select Index. Shares of Amylin Pharmaceuticals rose 19 percent in March and 58.5 percent during the first quarter after it was announced that the U.S. Food and Drug Administration would not ask it and its partners Eli Lilly and Alkermes to conduct additional studies on their diabetes drug exenatide LAR, or Bydureon, a once-weekly version of the twice-daily Byetta injection. Strong fourth quarter financials drove Alexion's shares up 10 percent in March and 11.5 percent for the quarter. Illumina's shares jumped 7.1 percent for the month and 26.5 percent for the quarter. The company received favorable publicity following the sequencing of the genome of American film actress Glenn Close.

Genzyme's shares were off 9.4 percent in March following the company's announcement that the FDA planned to enforce plant operation inspections at its Boston facility. In June, the company shut down that manufacturing plant for about three months to clean up viral contamination that had been slowing down production of its key drugs Cerezyme and Fabrazyme. Genzyme is also battling billionaire investor Carl Icahn, who is striving to win four board seats at the company.

Shares of Myriad Genetics also slipped after a court overturned a group of patents on gene sequences linked to breast cancer and ovarian cancer, which Myriad uses in tests for those diseases. The company markets a test for mutations on the two breast cancer predisposition genes, which are called BRCA1 and BRCA2. The company holds patents on

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Year-To-Date Financings Through March 31, 2010 (USD M)

| | | | |
|------------------------------|----------|--------------------------------|----------|
| Total Global Venture capital | \$ 1,983 | Global Other financings | \$ 249 |
| U.S. VC only | \$1,464 | U.S. other financings only | \$ 154 |
| Total IPOs (6) | \$ 396 | Total Global Public Financings | \$ 9,326 |
| U.S. IPOs (4) | \$ 365 | Total Public financings U.S. | \$ 7,783 |
| Total Global PIPEs | \$ 1,035 | Global Partnering | \$24,126 |
| U.S. PIPEs only | \$ 450 | U.S. only Partnering deals | \$ 7,850 |
| Total Global follow-ons | \$ 1,623 | Global M&A | \$58,225 |
| U.S. Follow-ons only | \$ 1,212 | U.S. only M&A | \$13,723 |
| Global Debt offerings | \$ 6,031 | | |
| U.S. Debt only | \$ 5,609 | | |

Myriad ruling unsettles the industry

By Michael Fitzhugh

Myriad Genetics lost a court battle to protect gene patents central to its top diagnostic test, leaving the future of gene-related patents and the businesses that rely on

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ISSN:1943-7617

PUBLISHED MONTHLY BY:

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Myriad Ruling Unsettles the Industry

Judge's decision to invalidate gene patents has biotech companies, investors worried.

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them in question. The March 29 decision solely invalidates several of Myriad's and the University of Utah Research Foundation's patents on genes linked to breast and ovarian cancer, but it still set off a round of collective hand wringing among biotechnology investors and trade groups, which have expressed concern about its impact on businesses that rely on nearly 2,000 gene-related U.S. patents.

The case, brought by the American Civil Liberties Union on behalf of women's health groups and cancer patients, resulted in summary judgment against Myriad, surprising patent attorneys with the certainty of its judgment

The ruling has brought an added level of uncertainty for investors in the biotech space since drug developers have many gene patents in place. Until the result of the appeals process are known, which could take many years, the landscape of biotech patent law has clearly been changed to the detriment of the industry

"The court correctly saw that companies should not be able to own the rights to a piece of the human genome," says Daniel Ravicher, executive director of the Public Patent Foundation and co-counsel in the lawsuit. "No one invented genes. Inventions are specific tests or drugs, which can be patented, but genes are not inventions."

"Assuming the decision is up-

held, it could be broadly interpreted and applied," says Bill Quirk, a managing director and senior research analyst at Piper Jaffray. But, the case's ultimate standing after appeals will take a long time to be resolved. It's still too early to draw a final analysis of the decision's ramifications, he says.

Myriad will appeal Judge Robert Sweet's decision to the Federal Circuit court. But that process is likely to take at least a year, says John Conley, an attorney at Robinson, Bradshaw & Hinson. Meanwhile, the impact of the ruling could prove limited.

"Judge Sweet's order will not affect any patents not directly involved in the case, nor be binding on any other court, and it is highly unlikely that the U.S.P.T.O. will change its gene patent examination standards just because of this decision," he writes in a colorfully

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Review

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several DNA sequences from the gene, but its patents were challenged a year ago in a lawsuit by the American Civil Liberties Union and other groups. Myriad says that it will ask the U.S. Court of Appeals for the Federal Circuit to overturn the decision, and predicted the case could eventually reach the U.S. Supreme Court.

Though the decision casts uncertainty over the industry as the appeals process winds its way through the court, it is important to remember the ruling is specific to the Myriad patents and do not broadly invalidate gene patents. The Supreme Court is expected to address the issue of what is patentable through a number of cases now before it.

Financing slows in the quarter

While venture capital continued

Pharmaceutical companies have become the lifeline for many biotech companies in need of financing.

to flow to U.S. biotech companies, it was down from the fourth quarter of 2009. Approximately \$1 billion of venture capital was invested in the first quarter of 2010, an increase of 7 percent over the previous quarter. However, follow-on financing fell 52 percent and only PIPE financing showed a slight increase in the amounts raised compared to the previous quarter.

The total of \$2.9 billion raised in the first quarter of this year was down almost 32 percent from the fourth quarter in 2009 total. This points to the fact that, while the capital markets have improved, and big biotechs have benefitted from this, the environment for raising capital still remains soft. Investors are not yet ready to participate fully in the risks associated with devel-

opmental stage biotech companies. Even though four biotech IPOs managed to get out this quarter interest in them was at best lukewarm. The current environment favors biotech companies with products and revenue.

Partnering remains brisk

To a large extent pharmaceutical companies have become the lifeline for many biotech companies in need of financing. Following on from the record amount of partnership dollars generated by U.S. biotechs in 2009, the first quarter saw an additional \$6.1 billion being raised through partnership deals, a testimony to pharma's continuing need to access biotech innovation. Expect this trend to continue well into the next quarter. ■

Myriad Ruling

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titled blog posting on the decision: “Pigs Fly.”

Behind the case lies a conviction by some that gene patents inhibit research and innovation. Ken Chahine, a visiting professor of law at the University of Utah, doesn't find that argument compelling.

“I would argue that the weight of the evidence points to the fact that it doesn't inhibit research. So, if it doesn't inhibit research, why are we moving in this direction? I think there is the potential that at least in the short term, it could in-

hibit some investments,” he says.

Many life sciences organizations rushed to Myriad's aid with concern over that very issue, filing briefs in support of gene patents.

The Biotechnology Industry Organization, the country's largest biotechnology trade group, expressed the industry's over-arching concern:

“In many cases, gene-based patents are critical for a biotech company's ability to attract the capital and investment necessary for the development of innovative diagnostic, therapeutic, agricultural

and environmental products,” it said in its brief. “Thus, the issues raised in this case are of great importance to the U.S. biotechnology industry.”

At least one camp could benefit from the ruling, says Piper Jaffray's Quirk. The dissolution of patents that now block diagnostic services and genetic information companies from providing information about key genetic indicators of disease risk could allow those companies to provide a more detailed picture to clients, potentially for a bigger payday. ■

Winners and Losers First Quarter 2010

| COMPANY | TICKER | SHARE PRICE INCREASE | NOTES |
|-----------------------------------|--------|----------------------|---|
| WINNERS | | | |
| Somaxon Pharmaceuticals | SOMX | 701.85% | Receives FDA approval for insomnia drug |
| Adeona Pharmaceuticals Inc | AEN | 244.64% | Positive enrollment progress on MS trial |
| InterMune | ITMN | 241.79% | FDA panel recommended that the agency approve its drug, pirfenidone |
| Rexahn | RNN | 138.24% | Positive news about experimental drug to treat Parkinson's Disease |
| OccuLogix | TEAR | 107.20% | Positive 2009 financials drive stock value |
| Cyclacel Pharmaceuticals | CYCC | 106.73% | Reduces net loss in 2009 |
| Pharmacyclics | PCYC | 98.73% | Clinical trials progress drive stock valuation |
| OSI Pharmaceutical | OSIP | 91.73% | Astellas Pharma extends all-cash tender offer to buy company |
| Questcor Pharmaceuticals | QCOR | 73.26% | Posted earnings that beat the Street's estimates |
| Ziopharm Oncology | ZIOP | 71.62% | Favorable 2009 financials |
| LOSERS | | | |
| ARYx Therapeutics | ARYX | -72.90% | Unable to find partner. Reduces staff and is examining its strategic options |
| Medivation | MDVN | -72.14% | Disappointing trial results and wider than expected loss in financial results |
| Cell Therapeutics | CTIC | -52.57% | FDA rejects application to approve its lymphoma drug pixantrone |
| XenoPort | XNPT | -50.08% | Company restructuring after lead drug setback |
| Molecular Insight Pharmaceuticals | MIPI | -41.78% | Shares drop on doubts about company's ability to remain in business |
| MiddleBrook Pharmaceuticals | MBRK | -41.18% | Auditors express doubts on the company's ability to continue as a going concern |
| Adventrx Pharmaceuticals | ANX | -37.77% | Receives refusal-to-file letter from the FDA for lead drug |
| Poniard Pharmaceuticals | PARD | -37.16% | It will halt plans to gain regulatory approval for potential cancer drug picoplatin |
| Oncothyreon | ONTY | -35.99% | Clinical trial for its Stimuvax drug has been halted |
| GenVec | GNVC | -35.00% | Halts phase 3 study of its drug TNFerade due to poor results |

The Price of Failure

Late-stage clinical disappointments wipe away billions of dollars in shareholder value for a handful of companies in the first quarter.

By Daniel S. Levine

The first quarter of 2010 saw a number of clinical trial failures that sent the stocks of once hopeful companies tumbling. The sometimes sudden losses in value are a reminder of the often binary nature of success and failure in the biotechnology business.

The chart on the following page, which lists the more dramatic drops in value among companies that suffered mid- or late-stage clinical trial failures during the first quarter of March, underlines the high-risk nature of both drug development and investing in companies that engage in that activity.

Novelos late-stage failure of its experimental drug for non-small cell lung cancer led to more than an 80 percent plunge in value from the closing price the day before the news and the closing price the day after the news. It was the biggest percentage drop in value attribut-

able to a clinical trial failure for any company this quarter.

In dollar terms, Actelion, which had the smallest percentage drop on our list of clinical failures, actually had the largest dollar decline as the Swiss company saw more than \$1 billion in market cap erased with the failure of its experimental

drug Tracleer as a treatment for idiopathic pulmonary fibrosis. Genmab said a late-stage trial of its experimental therapy zalutumumab in combination with best supportive care failed to demonstrate a statistically significant difference in patients with head and neck cancer who failed standard platinum-based chemotherapy compared to just best supportive care alone. ■

Actelion had the largest dollar decline as the Swiss company saw more than \$1 billion in market cap erased with the failure of its experimental drug Tracleer.

Two other companies, Medivation and Genmab, each lost more than \$900 million in market cap on news of clinical failures.

Medivation, a once-high flying San Francisco-based company that appeared to have been a breakthrough treatment

in staff.

Genmab said a late-stage trial of its experimental therapy zalutumumab in combination with best supportive care failed to demonstrate a statistically significant difference in patients with head and neck cancer who failed standard platinum-based chemotherapy compared to just best supportive care alone. ■

The Price of Failure

SELECTED STOCK PERFORMANCE FOR COMPANIES WITH CLINICAL TRIAL FAILURES IN THE FIRST QUARTER

| DATE | COMPANY | TICKER | DRUG | INDICATION | PHASE | STOCK PRICE | | | MARKET CAP | | |
|------------|-------------------------------|--------|------------------------------|---|-------|-------------|-----------|----------------|------------|-------|----------------|
| | | | | | | DAY BEFORE | DAY AFTER | PERCENT CHANGE | BEFORE | AFTER | CHANGE (USD M) |
| 2/24/2010 | Novelos Therapeutics | NVLT | NOV-002 | non-small cell lung cancer | 3 | 1.65 | 0.32 | -80.6 | 149.1 | 28.9 | 120.2 |
| 3/3/2010 | Medivation | MDVN | Dimebon | Alzheimer's disease | 3 | 40.25 | 13.04 | 67.6 | 1,368.5 | 443.3 | 925.2 |
| 02/26/2010 | Rockwell Medical Technologies | RMTI | soluble ferric pyrophosphate | iron maintenance in chronic hemodialysis patients | 2 | 8.14 | 5.9 | -27.5 | 140.0 | 101.5 | 38.5 |
| 3/8/2010 | Genmab | GEN | zalutumumab | head and neck cancer | 3 | 92.35 | 71.5 | -22.6 | 4,147.4 | 3,211 | 936.4 |
| 1/21/2010 | Inspire Pharma | ISPH | Prolactria | dry eye | 3 | 6.8 | 5.54 | -18.5 | 560.0 | 456.2 | 103.8 |
| 3/24/2010 | Vernalis | VER | indantadol | neuropathic pain | 2 | 75 | 62 | -17.3 | 95.5 | 74.7 | 20.8 |

Regional Venture Financing: Boston Takes Top Share

First quarter sees more than a third of venture dollars heading to Beantown.

By Marie Daghlian

Life sciences companies in the greater Boston area received the lion's share of venture financing during the first quarter of 2010 with 37 deals bringing in \$482 million of new capital, a 36 percent increase over the \$354 million raised in the first quarter of 2009. The San Francisco Bay Area ranked second with \$306 million raised in 31 deals, followed by Greater San Diego, which attracted \$267 million in 23 deals. While San Diego companies saw a modest 5.4 percent increase over the first quarter of 2009, venture financing in the Bay Area fell by almost

50 percent over the first quarter last year.

Nationwide, the number of deals increased 30 percent over the first quarter of 2009, but deal value decreased by 35 percent resulting in overall venture capital raised dropping 15.5 percent compared to the same period in 2009.

Companies in North Carolina's Durham-Research Park biotech hub saw a huge surge in venture capital financing as four companies raised \$66 million in the first quarter, led by PhaseBio Pharmaceuticals' \$25.3 million series B round to advance their protein platform.

Burrill Report analysis of life sciences venture capital financing revealed that the life

sciences sector, which includes therapeutics and diagnostics, medical devices and health-care technology, and industrial/agbiotech, raised a total of \$6.67 billion in 2009, almost equal to the \$6.65 billion raised in 2008.

The San Francisco Bay Area, which includes Silicon Valley, took in the largest share of that money—\$1.9 billion, accounting for 28 percent of the total. Boston area companies garnered \$1.26 billion of venture financing, or 19 percent of the total raised last year. The San Diego area was third, bringing in \$809 million of new capital, 12 percent of the total amount raised in 2009. ■

U.S. Venture Capital Financings First Quarter 2010 by Region (USD M)

| REGION | Q1 2008 | Q1 2009 | Q1 2010 | 2009 TO 2010 CHANGE |
|--|---------|---------|---------|---------------------|
| San Francisco Bay Area | 180.4 | 600.6 | 305.6 | -49.1% |
| Greater San Diego | 254.1 | 253.5 | 267.2 | 5.4% |
| All of California (Includes San Diego and San Francisco) | 516.4 | 899.1 | 592.8 | -34.1% |
| Greater Boston | 230.3 | 354.1 | 482 | 36.1% |
| New England (includes Greater Boston) | 237.3 | 415.1 | 520 | 25.3% |
| Mid-Atlantic (NY, NJ, PA, DE, MD, VA) | 320 | 196.2 | 143.6 | -26.8% |
| Carolinas | 14.5 | 4 | 67.1 | 1577.5% |
| Central States (OH, IN, IL, KS, MI, MN, MO, WI, SD) | 125.5 | 63.4 | 61.5 | -3.0% |
| Southwest (AZ, CO, TX, UT) | 28.6 | 83.3 | 151.5 | 81.9% |
| South (FL, GA, KY, LA, TN) | 40 | 8 | 25.3 | 216.3% |
| Greater Seattle | 77.9 | 59.5 | 22 | -63.0% |
| TOTAL US VENTURE CAPITAL FINANCINGS (USD M) | Q1 2008 | Q1 2009 | Q1 2010 | |
| | 1262.2 | 1728.6 | 1461.2 | -15.5% |
| Number of Deals | 91 | 114 | 148 | 29.8% |
| Average Deal Value | 13.9 | 15.2 | 9.9 | -34.9% |

U.S. IPO Performance First Quarter 2010

| COMPANY | TICKER | PRINCIPAL FOCUS | IPO DATE | CAPITAL RAISED (USD M) | OFFERING PRICE | PRICE 3/31/2010 | PERCENT CHANGE |
|----------------------------|--------|-------------------|-----------|------------------------|----------------|-----------------|----------------|
| Cumberland Pharmaceuticals | CPIX | Specialty pharma | 8/11/2009 | 85 | 17 | 10.53 | -38.0 |
| Talecris Biotherapeutics | TLCR | Blood products | 10/1/2009 | 550 | 19 | 19.92 | 5.0 |
| Omeros | OMER | Inflammation; CNS | 10/8/2009 | 68 | 10 | 7.04 | -26.0 |
| Ironwood Pharmaceuticals | IRWD | Gastrointestinal | 2/2/2010 | 215.6 | 11.3 | 13.6 | 20.0 |
| Anthera Pharmaceuticals | ANTH | Inflammatory | 3/1/2010 | 46.2 | 7.0 | 7.0 | 0.0 |
| AVEO Pharmaceuticals | AVEO | Oncology | 3/12/2010 | 89.7 | 9.0 | 9.0 | 0.0 |
| CorMedix | CRMD-U | Cardiorenal | 3/22/2010 | 13.5 | 6.5 | 6.6 | 2.0 |

QUARTERLY NUMBERS

Quarterly Financing Boosted From a Year Ago

Investors remain risk averse as they raise the bar on what it takes to garner funding.

By Marie Daghljan

Public market financings in the first quarter of 2010 improved significantly over the same period last year, which was at the height of the economic crisis. Investors remain risk-averse, however, and while companies with promising late-stage clinical data and products near approval are having an easier time raising capital, access to capital is still difficult for earlier stage companies and start-ups. Venture capital is available, but the bar has been raised.

The IPO market remains muted. All four U.S. companies that went public during the first quarter 2010 priced below their original target range in order to get deals done. Ironwood Pharmaceuticals, the first biotech company to go public in 2010, priced at \$11.25 a share, well below its target range of \$14 to \$16. The company, which has a late-stage compound to treat irritable bowel syndrome, raised \$216 million, much of it from insiders. Anthera Pharmaceuticals, a California biotech getting ready to launch a late-stage trial of its lead anti-inflammatory drug candidate, went public at the beginning of March raising \$42 million. Anthera's debut at \$7 a share, half its original target price, seemed to be a sign that there would not be an easy route to go public for the queue of companies waiting in the wings.

Aveo Pharmaceuticals' initial public offering on March 12 reaffirmed investors' tepid interest in the IPOs of developmental stage biotech companies. The Massachusetts-based biotech priced 9 million shares at \$9, well below its target \$13 to \$15 a share range, raising \$81 million to further development of its late-stage renal cell cancer treatment.

One thing that seems to be clear is that companies going public today are starting from a new baseline. They must entice investors with a late-stage product or existing revenue. And while the capital markets have improved for public companies, investors are showing little appetite for risk.

Investors were not shy about investing in already public companies during the first quarter 2010. Capital financing in the public markets was robust and should continue to hold promise with a full line-up of important dates in the second quarter when regulators will decide whether or not to approve the marketing of new drugs.

An analysis of the data shows that life sciences companies raised a total of \$1.6 billion through follow-on offerings, a 182 percent jump from the paltry \$580 million raised during the first quarter of 2009. Several companies capitalized on positive news to tap the market for additional funds. InterMune raised \$113.5 million a couple of weeks after its new drug application for its idiopathic pulmonary fibrosis treatment pirfenidone was granted priority review by the U.S. Food and Drug Administration. The FDA is expected to decide on its application by May 4. And Somaxon Pharmaceuticals raised \$57 million in a secondary offering after FDA approval of its insomnia drug Silenor sent shares skyrocketing almost 60 percent.

Financings through PIPEs was also robust at \$1 billion, up 149 percent. That compared to \$410 million raised during the same period a year ago. Of that, U.S. companies raised \$454 and companies in Canada and Europe accounted for most of the rest. Concurrent with a follow-on offering that raised \$111 million.

An example of alternative financing during the quarter was Paul Capital Healthcare's funding of up to \$100 million for Phase III Development (P3D), a company set up to assist in the management and funding of clinical trials in the European Union. At the same time, P3D entered into a definitive agreement with a major global pharmaceutical company to fund the label expansion of a currently approved therapeutic product. P3D will assist in the management and funding of phase 3 clinical trials in additional indications for the

product in return for development and regulatory milestone payments related to the late stage trials, a percentage of certain out-licensed product royalties, and a percentage of the revenue generated after the additional indications are approved.

Venture capital financing for life sciences during the first quarter of 2010 started strong and finished quietly. Globally, however, it was up 12 percent over the same period in 2009. Companies raised \$1.9 billion in 191 deals, averaging about \$10 million per financing.

Pfizer's venture arm was active during the quarter, investing \$9 million in drug developer Flexion Therapeutics' \$42 million Series A round. At the same time, the Massachusetts-based drug developer also announced agreements with AstraZeneca, Merck Serono, and one other pharmaceutical partner, in-licensing the rights to four clinical-stage compounds to establish a mature pipeline of clinically enabled drug candidates focused on inflammatory diseases.

Pfizer Ventures also led personal diagnostics company Nodality's \$15.5 million financing round. South San Francisco-based Nodality will use the money to support the launch of its first test in acute myelogenous leukemia.

The largest single venture financing of the quarter was completed by U.K. based Archimedes Pharma, which broke a 15-year record for a European funding round by raising \$100 million led by new investor Novo Growth Equity, the growth equity fund of Novo A/S, with participation by major current investor, Warburg Pincus, a global private equity firm. The funding was also Novo Growth Equity's first investment since it was established at the beginning of 2009. Archimedes will use the money to establish operations in the United States, support the growth of its specialty pharmaceutical business in Europe, and support the global commercial launch of PecFent, its fentanyl nasal spray for the treatment of breakthrough cancer pain. ■

Global Public Financings First Quarter 2010

| COMPANY | TICKER | COUNTRY | CATEGORY | PRINCIPAL FOCUS | USD M |
|--|-------------|---------------|------------------|----------------------------|--------------|
| GLOBAL INITIAL PUBLIC OFFERINGS | | | | | |
| Ironwood Pharmaceutical | IRWD | United States | Therapeutics | Gastrointestinal | 215.6 |
| Anthera Pharmaceuticals | ANTH | United States | Therapeutics | Cardiovascular, autoimmune | 46.2 |
| AVEO Pharmaceuticals | AVEO | United States | Therapeutics | Oncology | 89.7 |
| CorMedix | CRDM-U | United States | Therapeutics | Cardiorenal | 13.5 |
| US total IPOs | | | | | 360.8 |
| Cbio | ASX:CBZ | Australia | Therapeutics | Autoimmune, inflammatory | 6.2 |
| CellSeed | Jasdaq:7776 | Japan | Therapeutics | Regenerative medicine | 12.5 |
| Global IPOs Total | | | | | 379.5 |
| Q1 2010 GLOBAL PIPES | | | | | |
| Company | Ticker | Country | Category | Principal Focus | USD M |
| World Heart | WHRT | United States | Tools/Technology | Cardiovascular | 7.3 |
| Interleukin Genetics | ILI | United States | Tools/Technology | Genetic testing | 5.3 |
| Arrayit | ARYC | United States | Tools/Technology | Scanners | 2.9 |
| BSD Medical | BSDM | United States | Tools/Technology | Heat treatments for cancer | 2.0 |
| Pressure BioSciences | PBIO | United States | Tools/Technology | PCT kits | 0.5 |
| U.S. Tools/ Technology Total | | | | | 18.0 |
| Lexicon Pharmaceuticals | LXRX | United States | Therapeutics | Neurology; autoimmune | 75.0 |
| Cell Therapeutics | CTIC | United States | Therapeutics | Oncology | 30.0 |
| GenVec | OTC:GNVC | United States | Therapeutics | Oncology | 28.0 |
| Genta | OTC:GETA | United States | Therapeutics | Oncology | 25.0 |
| ADVENTRX Pharmaceuticals | ADVX | United States | Therapeutics | Specialty pharma | 19.0 |
| Amicus Therapeutics | FOLD | United States | Therapeutics | Biopharmaceuticals | 18.5 |
| Chelsea Therapeutics | CHTP | United States | Therapeutics | Biopharmaceuticals | 18.2 |
| BioSante Pharmaceuticals | BPAX | United States | Therapeutics | Specialty pharma | 18.0 |
| Anthera Pharmaceuticals | ANTH | United States | Therapeutics | Inflammatory | 17.1 |
| Curis | CRIS | United States | Therapeutics | Oncology | 16.3 |
| Rxi Pharmaceuticals | RXII | United States | Therapeutics | RNAi | 16.2 |
| Senesco Technologies | SNTK | United States | Therapeutics | Oncology | 11.5 |
| Cardium Therapeutics | CXM | United States | Therapeutics | Cardiovascular | 11.3 |
| Geron | GERN | United States | Therapeutics | Gene/cell therapy | 10.0 |
| Provectus Pharmaceuticals | OTC:PVCT | United States | Therapeutics | Oncology | 7.5 |
| Oxigene | OXGN | United States | Therapeutics | Oncology, ocular | 7.5 |
| Access Pharmaceuticals | ACCP | United States | Therapeutics | Oncology | 6.3 |
| Cyclacel Pharmaceuticals | CYCC | United States | Therapeutics | Oncology | 5.9 |
| MDRNA | MDRA | United States | Therapeutics | RNAi | 5.5 |
| Neuralstem | CUR | United States | Therapeutics | Neurology | 5.3 |
| Cleveland Biolabs | CBLI | United States | Therapeutics | Radiation side effects | 5.0 |
| Solta Medical | SLTM | United States | Therapeutics | Dermatology | 4.8 |

(continued) »

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Global Public Financings First Quarter 2010

| COMPANY | TICKER | COUNTRY | CATEGORY | PRINCIPAL FOCUS | USD M |
|-----------------------------------|-----------|----------------|-----------------|------------------------|--------------|
| CytoDyn | OTC:CYDY | United States | Therapeutics | Infectious | 3.0 |
| Lifevantage | OTC:LFVN | United States | Therapeutics | Nutraceuticals | 2.6 |
| Palatin Technologies | PTN | United States | Therapeutics | Biopharmaceuticals | 2.6 |
| Oragenics | OTC:ORNI | United States | Therapeutics | Infectious | 2.5 |
| EntreMed | ENMD | United States | Therapeutics | Oncology | 5.0 |
| Manhattan Pharmaceuticals | OTC:MHAN | United States | Therapeutics | Pharmaceuticals | 2.5 |
| Akorn | AKRX | United States | Therapeutics | Generics | 2.5 |
| OncoCyte [BioTime] | BTIM | United States | Therapeutics | Stem cells | 2.0 |
| DARA BioSciences | DARA | United States | Therapeutics | Drug development | 1.7 |
| IGI Laboratories | NYSE-A:IG | United States | Therapeutics | Drug delivery | 1.6 |
| NovaDel Pharma | OTC:NVDL | United States | Therapeutics | Drug delivery | 1.5 |
| Medgenics | LSE:MEDG | United States | Therapeutics | Gene/cell therapy | 1.1 |
| Osteologix | OTC:OLGX | United States | Therapeutics | Specialty pharma | 1.0 |
| Ohr Pharmaceutical | OTC:OHRP | United States | Therapeutics | Unmet needs | 1.0 |
| ULURU | ULU | United States | Therapeutics | Specialty pharma | 1.0 |
| Pro-Pharmaceuticals | OTC:PRWP | United States | Therapeutics | Pharmaceuticals | 0.3 |
| Pro-Pharmaceuticals | OTC:PRWP | United States | Therapeutics | Specialty pharma | 0.3 |
| Bioheart | BHRT | United States | Therapeutics | Gene/cell therapy | n/a |
| U.S. Therapeutics Total | | | | | 394.1 |
| Solta Medical | SLTM | United States | Medical devices | Aesthetics | 17.2 |
| EnteroMedics | ETRM | United States | Medical devices | Gastrointestinal | 4.8 |
| SafeStitch Medical | OTC:SFES | United States | Medical devices | Diabetes | 4.0 |
| Aethlon Medical | OTC:AEMD | United States | Medical devices | Infectious disease | 0.6 |
| U.S. Medical Devices Total | | | | | 26.6 |
| One Bio | OTC:ONBI | United States | Industrial/Ag | Supplements | 3.0 |
| iMedicor | OTC:VMCI | United States | Digital Health | Social health networks | 0.8 |
| TearLab (OccuLogix) | TEAR | United States | Diagnostics | Ophthalmic | 5.0 |
| Response Genetics | RGDX | United States | Diagnostics | Genetic tests | 4.0 |
| TearLab (OccuLogix) | TEAR | United States | Diagnostics | Ophthalmic | 1.7 |
| Biomoda | OTC:BMOD | United States | Diagnostics | Oncology | 1.0 |
| U.S. Diagnostics Total | | | | | 11.7 |
| U.S. PIPES TOTAL | | | | | 454.2 |
| ReNeuron | LSE:RENE | United Kingdom | Therapeutics | Gene/cell therapy | 14.4 |
| Alliance Pharma | LSE:APH | United Kingdom | Therapeutics | Neurology | 11.7 |
| Silence Therapeutics | LSE:SLN | United Kingdom | Therapeutics | Oncology | 9.4 |
| Oxford BioMedica | LSE:OXB | United Kingdom | Therapeutics | Oncology | 0.3 |
| ReGen Therapeutics | LSE:RGT | United Kingdom | Therapeutics | Neurology | 0.2 |
| Medical Care Technologies | OTC:MDCE | United Kingdom | Digital Health | Telehealth | 0.1 |
| Biovitrum | SSE:BVT | Sweden | Therapeutics | Hematology | 212.4 |

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Global Public Financings First Quarter 2010

| COMPANY | TICKER | COUNTRY | CATEGORY | PRINCIPAL FOCUS | USD M |
|---------------------------------|------------|---------|------------------|------------------------------|----------------|
| BioInvent International | SSE:BINV | Sweden | Therapeutics | Cardiovascular | 20.8 |
| Diamyd Medical | SSE:DIAM B | Sweden | Therapeutics | Diabetes | 4.8 |
| NorDiag | OSE:NORD | Norway | Tools/Technology | Sample preparation tools | 1.4 |
| Epigenomics | Xetra:ECX | Germany | Diagnostics | Oncology | 20.6 |
| Agennix | Xetra:AGX | Germany | Therapeutics | Oncology | 13.2 |
| Mologen | Xetra:MGN | Germany | Therapeutics | Oncology | 5.2 |
| Bavarian Nordic | CSE:BAVA | Denmark | Therapeutics | Infectious, cancer | 59.0 |
| MabCure | OTC:MBCI | Belgium | Therapeutics | Antibodies | 1.0 |
| EUROPEAN PIPES TOTAL | | | | | 374.5 |
| PROLOR Biotech | OTC:PBTH | Israel | Therapeutics | Endocrine | 24.4 |
| Rosetta Genomics | ROSG | Israel | Diagnostics | | 5.1 |
| BrainStorm Cell Therapeutics | OTC:BCLI | Israel | Therapeutics | Gene/cell therapy | 1.5 |
| ISRAELI PIPES TOTAL | | | | | 31.0 |
| China Medicine | OTC:CHME | China | Therapeutics | Traditional Chinese Medicine | 69.6 |
| China Pediatric Pharmaceuticals | OTC:CPDU | China | Therapeutics | Pharmaceuticals | 1.5 |
| CHINESE PIPES TOTAL | | | | | 71.1 |
| Wex Pharmaceuticals | TSX:WXI | Canada | Therapeutics | Neurology | 32.6 |
| Spectral Diagnostics | TSX:SDI | Canada | Diagnostics | Sepsis | 18.6 |
| YM BioSciences | TSX:YM | Canada | Therapeutics | Oncology | 17.5 |
| YM BioSciences | TSX:YM | Canada | Therapeutics | Oncology | 17.5 |
| Resverlogix | TSX:RVX | Canada | Therapeutics | Cardiovascular | 7.5 |
| Novadaq Technologies | TSX:NVQ | Canada | Tools/Technology | Imaging systems | 7.1 |
| Protox Therapeutics | TSX:PRX | Canada | Therapeutics | Oncology | 5.0 |
| Biotonix | TSX:BTX | Canada | Therapeutics | Orthopedics | 2.5 |
| Neovasc | TSX-V:NVC | Canada | Medical devices | Cardiovascular | 1.9 |
| SemBioSys Genetics | TSX:SBS | Canada | Therapeutics | Endocrine | 1.7 |
| Neovasc | TSX-V:NVC | Canada | Medical devices | Vascular | 1.3 |
| Bradmer Pharmaceuticals | TSX:BMR | Canada | Therapeutics | Oncology | 0.8 |
| PharmaGap | TSX-V:GAP | Canada | Therapeutics | Oncology | 0.6 |
| Miraculins | TSX-V:MOM | Canada | Diagnostics | Unmet needs | 0.5 |
| CardioComm Solutions | TSX-V:EKG | Canada | Digital Health | Telehealth, Wireless ECG | 0.5 |
| Sernova | TSX:SVO | Canada | Medical devices | Diabetes | 0.5 |
| Neovasc | TSX-V:NVC | Canada | Medical devices | Vascular | 0.2 |
| CANADIAN PIPES TOTAL | | | | | 116.3 |
| GLOBAL PIPES TOTAL | | | | | 1,047.1 |

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Global Public Financings First Quarter 2010

| COMPANY | TICKER | COUNTRY | CATEGORY | PRINCIPAL FOCUS | USD M |
|------------------------------------|---------------|----------------|------------------|------------------------|----------------|
| Q1 2010 GLOBAL FOLLOW-ON | | | | | |
| Senomyx | SNMX | United States | Tools/Technology | Flavor ingredients | 20.0 |
| Derma Sciences | DSCI | United States | Tools/Technology | CMO, dermatology | 5.6 |
| TearLab (OccuLogix) | TEAR | United States | Tools/Technology | Lab-on-chip | 3.0 |
| U.S. Tools/Technology Total | | | | | 28.6 |
| AMAG Pharmaceuticals | AMAG | United States | Therapeutics | Anemia | 173.7 |
| InterMune | ITMN | United States | Therapeutics | Pulmonary | 113.5 |
| Lexicon Pharmaceuticals | LXRX | United States | Therapeutics | Neurology; autoimmune | 111.0 |
| Theravance | THRX | United States | Therapeutics | Infectious | 99.2 |
| ZymoGenetics | ZGEN | United States | Therapeutics | Oncology | 96.6 |
| Micromet | MITI | United States | Therapeutics | Drug discovery | 80.5 |
| Dyax | DYAX | United States | Therapeutics | Inflammatory, oncology | 63.5 |
| Somaxon Pharmaceuticals | SOMX | United States | Therapeutics | Insomnia | 56.9 |
| Optimer Pharmaceuticals | OPTR | United States | Therapeutics | Infectious | 53.8 |
| Pharmasset | VRUS | United States | Therapeutics | Hepatitis C | 34.3 |
| Synta Pharmaceuticals | SNTA | United States | Therapeutics | Oncology | 28.8 |
| Achillion Pharmaceuticals | ACHN | United States | Therapeutics | Infectious | 24.6 |
| Neurocrine Biosciences | NBIX | United States | Therapeutics | Neurology | 23.0 |
| XOMA | XOMA | United States | Therapeutics | Antibodies | 21.0 |
| Discovery Labs | DSCO | United States | Therapeutics | Respiratory | 16.5 |
| Aastrom Biosciences | ASTM | United States | Therapeutics | Gene/cell therapy | 13.5 |
| NeoStem | NBS | United States | Therapeutics | Gene/cell therapy | 7.8 |
| U.S. Therapeutics Total | | | | | 1,018.2 |
| Green Plains Renewable Energy | GPRE | United States | Industrial/Ag | Biofuels | 79.3 |
| Centene | CNC | United States | Digital Health | Enabling Software | 96.3 |
| U.S. FOLLOW-ONS TOTAL | | | | | 1,222.4 |
| Vernalis | LSE:VER | United Kingdom | Therapeutics | Neurology | 45.4 |
| Silence Therapeutics | LSE:SLN | United Kingdom | Therapeutics | Oncology | 14.8 |
| Verona Pharma | LSE:VRP | United Kingdom | Therapeutics | Inflammatory | 4.9 |
| Allergy Therapeutics | LSE:AGY | United Kingdom | Therapeutics | Inflammatory | 3.2 |
| Epigenomics | Xetra:ECX | Germany | Diagnostics | Oncology | 24.0 |
| Ablynx | Euronext:ABLX | Belgium | Therapeutics | Autoimmune | 78.9 |
| EUROPEAN FOLLOW-ON TOTAL | | | | | 171.2 |
| Mindray Medical | MR | China | Medical devices | | 152.8 |
| Sinovac Biotech | SVA | China | Therapeutics | Vaccines | 66.1 |
| CHINESE FOLLOW-ON TOTAL | | | | | 218.9 |

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Global Public Financings First Quarter 2010

| COMPANY | TICKER | COUNTRY | CATEGORY | PRINCIPAL FOCUS | USD M |
|---------------------------------------|----------------|---------------|------------------|---------------------------|----------------|
| Labopharm | TSX:DDS | Canada | Therapeutics | Improved biologics | 23.0 |
| BioCurex | OTC:BOCX | Canada | Diagnostics | | 6.5 |
| CANADIAN FOLLOW-ON TOTAL | | | | | 29.5 |
| GLOBAL FOLLOW-ON TOTAL | | | | | 1,642.0 |
| Q1 2010 GLOBAL DEBT FINANCINGS | | | | | |
| Viking Systems | OTC:VKNG | United States | Tools/Technology | | 5.00 |
| Stryker | SYK | United States | Tools/Technology | | 500.00 |
| Waters | WAT | United States | Tools/Technology | | 100.00 |
| NexMed | NEXM | United States | Tools/Technology | Specialty CRO | 2.30 |
| Life Technologies | LIFE | United States | Tools/Technology | | 1500.00 |
| International Isotopes | OTC:INIS | United States | Tools/Technology | Radio-isotopes | 3.00 |
| Waters | WAT | United States | Tools/Technology | | 100.00 |
| Vical | VICL | United States | Therapeutics | DNA delivery | 25.00 |
| Cortex Pharmaceuticals | OTC:CORX | United States | Therapeutics | Neurology | 1.50 |
| Incline Therapeutics | Private | United States | Therapeutics | Drug/device combo | 0.44 |
| Vyteris | OTC:VYTR | United States | Therapeutics | Drug delivery | 1.06 |
| GTC Biotherapeutics | GTCB | United States | Therapeutics | Proteins from transgenics | 7.00 |
| Poniard Pharmaceuticals | PARD | United States | Therapeutics | Oncology | 20.00 |
| Helix BioMedix | OTC:HXBM | United States | Therapeutics | Peptides | 2.90 |
| Senetek | SNTK | United States | Therapeutics | Dermatology | 3.00 |
| Unigene Laboratories | OTC:UGNE | United States | Therapeutics | Drug delivery | 13.60 |
| Radiant Pharmaceuticals | RPC | United States | Therapeutics | Specialty pharma | 0.93 |
| VIA Pharmaceuticals | VIAP.Pk | United States | Therapeutics | Cardiovascular | 1.30 |
| Medtronic | MDT | United States | Medical devices | | 3000.00 |
| Rentech Energy | RTK | United States | Industrial/Ag | Industrial/Ag | 62.50 |
| Prometheus Laboratories | Private | United States | Diagnostics | | 260.00 |
| U.S. Debt Offerings Total | | | | | 5609.53 |
| Orexo | SSE:ORX | Sweden | Therapeutics | Neurology | 15.30 |
| Fresenius Medical Care | | Netherlands | Tools/Technology | Dialysis | 360.00 |
| Pharming Group | Euronext:PHARM | Germany | Therapeutics | Genetic disorders | 10.75 |
| Affitech | CSE:AFFI | Denmark | Tools/Technology | Antibodies | 1.80 |
| European Debt Offerings Total | | | | | 387.85 |
| Cardiome Pharma | TSX:COM | Canada | Therapeutics | Cardiovascular | 25.00 |
| Allon Therapeutics | TSX: NPC | Canada | Therapeutics | Neurology | 9.50 |
| Labopharm | TSX:DDS | Canada | Therapeutics | Drug delivery | 0.97 |
| Canadian Debt Offerings Total | | | | | 35.5 |
| GLOBAL DEBT OFFERINGS TOTAL | | | | | 6,032.9 |

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Global Public Financings First Quarter 2010

| COMPANY | TICKER | COUNTRY | CATEGORY | PRINCIPAL FOCUS | USD M |
|--|--------------|----------------|------------------|------------------|---------------|
| Kendle International | KNDL | United States | Tools/Technology | CRO | 35.00 |
| NxStage Medical | NXTM | United States | Tools/Technology | Dialysis | 15.00 |
| Solta Medical | SLTM | United States | Tools/Technology | Aesthetics | 10.00 |
| Luna Innovations | LUNA | United States | Tools/Technology | | 5.00 |
| Fibrocell Science | OTC:FCSC | United States | Tools/Technology | Regenerative med | 3.81 |
| Bacterin International | Private | United States | Tools/Technology | Orthopedics | 3.00 |
| NexMed | NEXM | United States | Tools/Technology | CRO | 1.40 |
| EUSA Pharma | Private | United States | Therapeutics | Specialty pharma | 25.00 |
| Dynavax Technologies | DVAX | United States | Therapeutics | Infectious | 20.10 |
| PolyMedix | OTC:PYMX | United States | Therapeutics | Cardiovascular | 14.00 |
| PuraMed Bioscience | OTC:PMBS | United States | Therapeutics | OTC-migraines | 7.50 |
| ARCA biopharma | ABIO | United States | Therapeutics | Cardiovascular | 6.80 |
| Poniard Pharmaceuticals | PARD | United States | Therapeutics | Oncology | 6.30 |
| Cornerstone Pharmaceuticals | Private | United States | Therapeutics | Oncology | 6.18 |
| Diffusion Pharmaceuticals | Private | United States | Therapeutics | Cardiovascular | 6.00 |
| CytRx | CYTR | United States | Therapeutics | RNAi | 3.80 |
| Genta | OTC:GETA | United States | Therapeutics | Oncology | 2.80 |
| Celulas Genetica | Private | United States | Therapeutics | Stem cells | 1.80 |
| NeoStem | NBS | United States | Therapeutics | Stem cells | 1.75 |
| NeuroMetrix | NURO | United States | Medical devices | | 7.50 |
| U.S. Other Financings Total | | | | | 182.74 |
| Vectura Group | LSE:VEC | United Kingdom | Therapeutics | Specialty pharma | 25.00 |
| Ubiquigent | Private | United Kingdom | Tools/Technology | | 4.50 |
| ImmuPharma | LSE:IMM | United Kingdom | Therapeutics | Autoimmune | 3.30 |
| BioAMD | Private | United Kingdom | Diagnostics | Point-of-care | 1.30 |
| ProFibrix | Private | Netherlands | Tools/Technology | | 7.18 |
| Willex | Xetra:WL6 | Germany | Therapeutics | Oncology | 27.10 |
| NeuroSearch | CSE:NEUR | Denmark | Therapeutics | Neurology | 5.00 |
| ThromboGenics | Euronext:THR | Belgium | Therapeutics | Cardiovascular | 0.77 |
| European Other Financings Total | | | | | 74.15 |
| ProMetic Life Sciences | TSX:PLI | Canada | Therapeutics | Protein mimetics | 13.00 |
| iCo Therapeutics | TSX-V:ICO | Canada | Therapeutics | Ophthalmic | 0.91 |
| MethylGene | TSX:MYG | Canada | Therapeutics | Oncology | 8.90 |
| Canadian Other Financings Total | | | | | 22.8 |
| GLOBAL OTHER FINANCING TOTAL | | | | | 289.7 |

Global Venture Financings First Quarter 2010

| COMPANY | COUNTRY | CATEGORY | PRINCIPAL FOCUS | FUNDING ROUND | USD M |
|---------------------------|---------------|--------------|---------------------------|---------------------------------------|-------|
| NGM Biopharmaceuticals | United States | Therapeutics | Metabolic | Series B, 1st tranche | 51.0 |
| Alnara Pharmaceuticals | United States | Therapeutics | Metabolic | Series B | 35.0 |
| Eleven Biotherapeutics | United States | Therapeutics | Autoimmune | Series A | 35.0 |
| Genetix Pharmaceuticals | United States | Therapeutics | Gene/cell therapy | Series B | 35.0 |
| Elevation Pharmaceuticals | United States | Therapeutics | Drug delivery | Series A, 1st tranche of \$30M | 30.0 |
| PhaseBio Pharmaceuticals | United States | Therapeutics | Protein platform | Series B | 25.3 |
| VentiRx Pharmaceuticals | United States | Therapeutics | Oncology | Series A extension | 25.0 |
| Intercept Pharmaceuticals | United States | Therapeutics | Metabolic | Series B | 25.0 |
| Liquidia Technologies | United States | Therapeutics | Vaccines | Series C | 20.0 |
| Tioga Pharmaceuticals | United States | Therapeutics | Gastrointestinal | | 18.0 |
| Globeimmune | United States | Therapeutics | Immunotherapy | Series E | 17.5 |
| OriGene Technologies | United States | Therapeutics | Antibodies | Series B | 16.0 |
| Acton Pharmaceuticals | United States | Therapeutics | Specialty pharma | Series A-II | 15.0 |
| Pearl Therapeutics | United States | Therapeutics | Combination therapies | Loan facility convertible to Series C | 15.0 |
| Somnus Therapeutics | United States | Therapeutics | Specialty pharma | Series A | 15.0 |
| Vaxart | United States | Therapeutics | Oral Vaccines | Series B | 12.5 |
| Promedior | United States | Therapeutics | Inflammatory | Series C | 12.0 |
| EyeGate Pharma | United States | Therapeutics | Ocular | Series D, second tranche | 11.6 |
| BIND Biosciences | United States | Therapeutics | Nanoparticle drugs | Series C | 11.0 |
| Ra Pharmaceuticals | United States | Therapeutics | Rare diseases | Part of \$27.6 million round | 10.3 |
| Koltan Pharmaceuticals | United States | Therapeutics | Oncology | Series B | 10.0 |
| Biolex Therapeutics | United States | Therapeutics | Hepatitis C | Series D extension | 10.0 |
| Acetylon Pharmaceuticals | United States | Therapeutics | Inflammatory | Series A | 9.3 |
| Flexion Therapeutics | United States | Therapeutics | Drug development platform | Series A, final tranche of \$42M | 9.0 |
| Syndaz Pharmaceuticals | United States | Therapeutics | Oncology | 1st tranche of \$16M | 9.0 |
| Zafgen | United States | Therapeutics | Obesity | Series B, third close | 8.1 |
| Tocagen | United States | Therapeutics | Gene/cell therapy | Series D | 7.8 |
| Omthera Pharmaceuticals | United States | Therapeutics | Metabolic | Series A | 6.5 |
| Nuon | United States | Therapeutics | Autoimmune | | 6.1 |
| Hemaquest Pharmaceuticals | United States | Therapeutics | Anemia | | 6.0 |
| Tragara Pharmaceuticals | United States | Therapeutics | Oncology | Part of \$10M round | 5.0 |
| AccuDial Pharmaceutical | United States | Therapeutics | OTC drugs | Series A | 4.0 |
| Odyssey Thera | United States | Therapeutics | Drug discovery | | 3.5 |
| Tocagen | United States | Therapeutics | Gene/cell therapy | Sale of preferred shares | 3.0 |
| Catabasis Pharma | United States | Therapeutics | Inflammatory | Debt financing | 2.0 |
| Cerevast Therapeutics | United States | Therapeutics | Healthcare | Series B | 2.0 |
| Auspex Pharmaceuticals | United States | Therapeutics | Improved biologics | Promissory notes and warrants | 2.0 |
| Theraclone Sciences | United States | Therapeutics | Infectious | | 1.5 |
| Elcelyx | United States | Therapeutics | | Seed stage | 1.2 |
| ProActa | United States | Therapeutics | Oncology | Debt and securities | 1.1 |
| Excelimmune | United States | Therapeutics | Infectious | Series B-1 | 1.0 |
| Kineta | United States | Therapeutics | Infectious, autoimmune | | 0.9 |

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Global Venture Financings First Quarter 2010

| COMPANY | COUNTRY | CATEGORY | PRINCIPAL FOCUS | FUNDING ROUND | USD M |
|-------------------------------|---------------|------------------|---------------------------|-------------------------------|--------------|
| TheraVasc | United States | Therapeutics | Vascular | | 0.5 |
| CytoSolv | United States | Therapeutics | Wound care | Seed stage | 0.5 |
| Bioscience Vaccines | United States | Therapeutics | Vaccines | Seed stage | 0.4 |
| Impel NeuroPharma | United States | Therapeutics | Drug delivery | Seed stage | 0.3 |
| Virobay | United States | Therapeutics | Hepatitis C | Debt financing | 0.3 |
| Ampla Pharmaceuticals | United States | Therapeutics | | Stealth mode | 0.3 |
| Advanced Cancer Therapeutics | United States | Therapeutics | Oncology | Seed stage | 0.3 |
| Thermalin diabetes | United States | Therapeutics | Diabetes | Seed stage | 0.3 |
| Juvaris BioTherapeutics | United States | Therapeutics | Infectious | \$25M Series B, 2nd tranche | n/a |
| Rhythm Pharmaceuticals | United States | Therapeutics | Metabolic | First close of \$21M series A | n/a |
| | | | | Therapeutics Total | 547.0 |
| Nodality | United States | Diagnostics | | In two tranches | 15.5 |
| Molecular Biometrics | United States | Diagnostics | Personalized medicine | Series B | 12.5 |
| CancerGuide Diagnostics | United States | Diagnostics | Oncology | | 10.5 |
| Bio Behavioral Diagnostics | United States | Diagnostics | ADHD | Series B | 10.5 |
| Saladax Biomedical | United States | Diagnostics | | Series C | 8.4 |
| Aviir | United States | Diagnostics | Cardiovascular | | 4.2 |
| Biocept | United States | Diagnostics | Oncology | | 3.6 |
| Castle Biosciences | United States | Diagnostics | Cancer | | 1.1 |
| Iverson Genetic Diagnostics | United States | Diagnostics | Genetic testing | | 0.5 |
| Novita Therapeutics | United States | Diagnostics | | | n/a |
| Gold Standard Diagnostics | United States | Diagnostics | | Series A | n/a |
| | | | | Diagnostics Total | 66.8 |
| Intrexon | United States | Tools/Technology | Genetic engineering | | 25.0 |
| Navigenics | United States | Tools/Technology | Genetic tests | | 18.0 |
| MicroChips | United States | Tools/Technology | Sensor systems | | 16.5 |
| Salient Surgical Technologies | United States | Tools/Technology | Surgical tools | Series G | 15.1 |
| U-Systems | United States | Tools/Technology | Ultrasound | | 10.0 |
| Fluidnet | United States | Tools/Technology | Infusion pumps | | 9.1 |
| SensAble Technologies | United States | Tools/Technology | Digital dentistry | | 8.0 |
| NABsys | United States | Tools/Technology | DNA sequencing | Series B | 7.0 |
| Aureon Laboratories | United States | Tools/Technology | Cancer analytics | Part of \$18 million round | 7.0 |
| BioLeap | United States | Tools/Technology | Drug design | | 5.0 |
| Advanced Cardiac Therapeutics | United States | Tools/Technology | Cardiovascular | Series B | 5.0 |
| Cardiorobotics | United States | Tools/Technology | Surgical tools | | 5.0 |
| Seahorse Bioscience | United States | Tools/Technology | Cell metabolism analyzers | Series D | 5.0 |
| Adaptive TCR | United States | Tools/Technology | Sequencing | Seed stage | 4.5 |
| ProChon Biotech | United States | Tools/Technology | Tissue regeneration | Debt financing | 4.0 |
| Eureka Genomics | United States | Tools/Technology | Genomics | Seed stage | 3.7 |
| Vaxart | United States | Tools/Technology | Oral vaccine delivery | 1st tranche of \$12.5M | 3.5 |
| Presage Biosciences | United States | Tools/Technology | Clinical data provider | | 3.1 |

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Global Venture Financings First Quarter 2010

| COMPANY | COUNTRY | CATEGORY | PRINCIPAL FOCUS | FUNDING ROUND | USD M |
|--------------------------------|---------------|------------------|---------------------------|--------------------------------|--------------|
| ViOptix | United States | Tools/Technology | Tissue oximeter | Bridge funding | 3.0 |
| Cleveland HeartLab | United States | Tools/Technology | Clinical reference lab | | 3.0 |
| Isis Biopolymer | United States | Tools/Technology | Drug delivery | | 3.0 |
| Cyntellect | United States | Tools/Technology | Cellular analysis | Equity, debt, options | 3.0 |
| Counsyl | United States | Tools/Technology | Genetic tests | | 2.2 |
| CyVek | United States | Tools/Technology | Microfluidics for Dx | | 2.0 |
| Entourage Medical Technologies | United States | Tools/Technology | Unknown | Stealth mode | 1.9 |
| ImpactRx | United States | Tools/Technology | IT services | | 1.2 |
| U.S. Genomics | United States | Tools/Technology | Genomics | | 1.0 |
| Pico-Tesla | United States | Tools/Technology | Motion sensors | Series A, 1st tranche | 1.0 |
| Cambridge Endoscopic Devices | United States | Tools/Technology | Surgical tools | Debt | 0.7 |
| MediProPharma | United States | Tools/Technology | Product development | | 0.7 |
| Articulate Technologies | United States | Tools/Technology | Speech articulation | Debt financing | 0.4 |
| Spectra Analysis | United States | Tools/Technology | Molecular spectroscopy | Debt | 0.1 |
| AmideBio | United States | Tools/Technology | Peptides | | n/a |
| Bone Biologics | United States | Tools/Technology | Orthobiologics | | n/a |
| Tools/Technology Total | | | | | 177.7 |
| IkaSystems | United States | Digital Health | Healthcare management IT | | 120.0 |
| PatientSafe Solutions | United States | Digital Health | Patient safety | Series B-1 | 30.0 |
| Virtify | United States | Digital Health | Regulatory compliance IT | Series A | 15.0 |
| Awarepoint | United States | Digital Health | Patient tracking | Series E | 10.0 |
| MicroTransponder | United States | Digital Health | Wireless Neurostimulation | Series B | 7.0 |
| Practice Fusion | United States | Digital Health | Electronic health records | 1st tranche of \$7.1M round | 5.0 |
| Limeade | United States | Digital Health | Employee wellness | | 3.0 |
| Posit Science | United States | Digital Health | Wellness | | 2.4 |
| Life Image | United States | Digital Health | Medical data software | | 2.2 |
| iTech Medical | United States | Digital Health | Musculoskeletal | | 2.2 |
| Endpoint Clinical | United States | Digital Health | Clinical trial management | Equity, debt, options | 1.7 |
| TheraSim | United States | Digital Health | Online tools | | 1.3 |
| HealthPrize Technologies | United States | Digital Health | Consumer health | | 0.1 |
| Digital Health Total | | | | | 199.9 |
| Intuity Medical | United States | Medical devices | Blood glucose monitoring | Series D | 64.0 |
| Tandem Diabetes Care | United States | Medical devices | Insulin pumps | | 52.0 |
| TransMedics | United States | Medical devices | Transplantation | | 36.0 |
| Pulmonx | United States | Medical devices | Respiratory | Equity, options, warrants | 31.6 |
| Neomend | United States | Medical devices | Wound management | Series D | 30.0 |
| CircuLite | United States | Medical devices | Cardiovascular | Series C, 2nd tranche | 22.5 |
| Carticept Medical | United States | Medical devices | Orthopedics | Series B | 20.0 |
| Intrinsic Therapeutics | United States | Medical devices | Spinal implants | Series E, partial | 18.0 |
| GI Dynamics | United States | Medical devices | Metabolic | Medtronic strategic investment | 15.0 |
| Reverse Medical | United States | Medical devices | Cardiovascular | Series B | 14.0 |

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Global Venture Financings First Quarter 2010

| COMPANY | COUNTRY | CATEGORY | PRINCIPAL FOCUS | FUNDING ROUND | USD M |
|--------------------------------------|----------------|------------------|----------------------------|------------------------------|----------------|
| Pulmonx | United States | Medical devices | Respiratory | Options, warrants, debt | 11.5 |
| HistoSonics | United States | Medical devices | Ultrasound | Series A | 11.0 |
| Hemosphere | United States | Medical devices | Dialysis | Series A-1 recap | 9.4 |
| Calibra Medical | United States | Medical devices | Metabolic | Part of \$32.3M target round | 9.3 |
| CardiAQ Valve Technologies | United States | Medical devices | Cardiovascular | Series A | 6.5 |
| CardioInsight Technologies | United States | Medical devices | Electrocardiograph imaging | Series B | 6.0 |
| Neuralieve | United States | Medical devices | Neurology | 1st tranche of \$7.5M round | 3.9 |
| Anulex Technologies | United States | Medical devices | Tissue repair | Debt and options | 3.8 |
| Dfine | United States | Medical devices | Musculoskeletal | 1st tranche of \$3M round | 2.8 |
| EMKinetics | United States | Medical devices | Electric pulse therapy | Part of \$3.35M round | 2.8 |
| TVA Medical | United States | Medical devices | Renal | Series A | 2.6 |
| SmartCells | United States | Medical devices | Diabetes | Part of \$4 million round | 1.8 |
| InSite Medical Technologies | United States | Medical devices | | Part of \$2.08M round | 1.1 |
| Medical Devices Total | | | | | 375.5 |
| Propel Fuels | United States | Industrial/Ag | Infrastructure | Series C-equity and debt | 20.0 |
| Segetis | United States | Industrial/Ag | Green chemistry | Series B | 17.2 |
| Aurora Biofuels | United States | Industrial/Ag | Algae | Series C | 15.0 |
| Genomatica | United States | Industrial/Ag | Renewable chemicals | Series C | 15.0 |
| Akermin | United States | Industrial/Ag | Carbon capture | Series B | 10.0 |
| Allylix | United States | Industrial/Ag | Specialty chemicals | | 6.0 |
| Amyris Biotechnologies | United States | Industrial/Ag | Synthetic Biology | Investment in Amyris Brasil | 4.5 |
| Tepha | United States | Industrial/Ag | Biopolymers | Part of \$7.4M round | 3.0 |
| Solum | United States | Industrial/Ag | Crop yield metrics | | 2.1 |
| Green Earth Technologies | United States | Industrial/Ag | Green chemicals | | 1.0 |
| American Energy Independence | United States | Industrial/Ag | Biodiesel | | 0.2 |
| Cibus Global | United States | Industrial/Ag | Crop traits | Seed stage--1st round | 0.2 |
| HM3 Energy | United States | Industrial/Ag | Biomass waste | | 0.2 |
| Industrial/Ag Total | | | | | 94.3 |
| TOTAL U.S. VENTURE FINANCINGS | | | | | 1,461.2 |
| Archimedes Pharma | United Kingdom | Therapeutics | Pain | | 98.5 |
| Oxford Nanopore Technologies | United Kingdom | Tools/Technology | Molecule identification | | 28.0 |
| Immune Targeting Systems | United Kingdom | Therapeutics | Vaccines | Series A | 20.8 |
| Myotec Therapeutics | United Kingdom | Therapeutics | Musculoskeletal | Series A | 8.5 |
| Cantab Biopharmaceuticals | United Kingdom | Therapeutics | Improved biologics | | 8.1 |
| Aquapharm Biodiscovery | United Kingdom | Therapeutics | Antibiotics | | 6.3 |
| Veryan Holdings | United Kingdom | Medical devices | Stents | | 5.4 |
| PolyTherics | United Kingdom | Tools/Technology | Protein engineering | | 4.7 |
| Glide Pharma | United Kingdom | Therapeutics | Drug delivery | | 4.3 |
| Microvisk Technologies | United Kingdom | Diagnostics | Point-of-care | | 2.8 |

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Global Venture Financings First Quarter 2010

| COMPANY | COUNTRY | CATEGORY | PRINCIPAL FOCUS | FUNDING ROUND | USD M |
|---|----------------|------------------|-------------------------|-----------------------------|--------------|
| Michelson Diagnostics | United Kingdom | Diagnostics | Cancer diagnostics | | 1.1 |
| Sistemic | United Kingdom | Therapeutics | Drug discovery | Series A | 1.0 |
| Oval Medical | United Kingdom | Tools/Technology | Injection technology | Seed stage | 0.7 |
| Asalus Medical Instruments | United Kingdom | Tools/Technology | Surgical tools | Spin out | n/a |
| Domainex | United Kingdom | Therapeutics | Oncology | | n/a |
| United Kingdom Total | | | | | 190.2 |
| CeQur | Switzerland | Therapeutics | Drug delivery | Series A | 29.6 |
| Viroblock | Switzerland | Therapeutics | Antivirals | Series B | n/a |
| Bioring | Switzerland | Medical devices | Cardiovascular | | n/a |
| Switzerland Total | | | | | 29.6 |
| Eribis Pharmaceutical | Sweden | Therapeutics | Cardiovascular | | n/a |
| Merus | Netherlands | Therapeutics | Antibodies | Series B | 30.7 |
| SpePharm | Netherlands | Therapeutics | Specialty pharma | Equity and debt | 15.0 |
| FABPulous | Netherlands | Diagnostics | Blood tests | | n/a |
| Netherlands Total | | | | | 45.7 |
| Venn Life Sciences | Ireland | Tools/Technology | CRO | | 3.0 |
| Kerecis | Iceland | Therapeutics | Regenerative medicine | Seed stage | n/a |
| Antisense Pharma | Germany | Therapeutics | Oncology | | 17.7 |
| DIREVO Industrial BioTools/ Technology | Germany | Industrial/Ag | Enzymes | | 9.5 |
| Affectis Pharmaceuticals | Germany | Therapeutics | Neurology, inflammatory | Series D, 1st tranche | 4.4 |
| EBS Tools/Technology | Germany | Medical devices | Neurology | Series B | 4.3 |
| Amedrix | Germany | Therapeutics | Wound management | | 1.0 |
| Medicyte | Germany | Therapeutics | Gene/cell therapy | 7-digit euro sum | n/a |
| Germany Total | | | | | 36.9 |
| Adocia | France | Therapeutics | Musculoskeletal | | 20.1 |
| BT Pharma/Gentcel | France | Therapeutics | Immunotherapy | | 17.7 |
| France Total | | | | | 36.9 |
| MirrX Therapeutics | Denmark | Therapeutics | mRNAi | Seed stage | n/a |
| Denmark Total | | | | | n/a |
| Amakem | Belgium | Therapeutics | Ophthalmic | | 2.1 |
| Belgium Total | | | | | 2.1 |
| f-star Biotechnologies | Austria | Tools/Technology | Antibodies | Extension of Series A round | 11.5 |
| EUCODIS Bioscience | Austria | Industrial/Ag | Enzymes | | 2.7 |
| Austria Total | | | | | 36.9 |
| EUROPE TOTAL | | | | | 36.9 |

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Global Venture Financings First Quarter 2010

| COMPANY | COUNTRY | CATEGORY | PRINCIPAL FOCUS | FUNDING ROUND | USD M |
|------------------------|-----------|--------------------------------|---------------------|-------------------------|-------------|
| Signostics | Australia | Digital Health | Handheld ultrasound | | 5.0 |
| Australia Total | | | | | 5.0 |
| Enerkem | Canada | Industrial/Ag | Biofuels | | 50.9 |
| Heart Force Medical | Canada | Digital Health | Cardiac monitoring | | 4.7 |
| Canada Total | | | | | 55.6 |
| moksa8 Pharmaceuticals | Brazil | Therapeutics | Neurology | | 25.0 |
| Brazil Total | | | | | 25.0 |
| Chakra Biotech | Malaysia | Clinical Research Organization | Neurology | Series B | 5.7 |
| Malaysia Total | | | | | 5.7 |
| SymBio Pharmaceuticals | Japan | Therapeutics | Oncology | Series B (two tranches) | 24.4 |
| Japan Total | | | | | 24.4 |
| Cheetah Medical | Israel | Medical Devices | Cardiology | Series B | 20 |
| Valtech Cardio | Israel | Medical Devices | Cardiology | Series B | 17.8 |
| EnzySurge | Israel | Therapeutics | Wound Management | | 4.1 |
| Israel Total | | | | | 41.9 |

Q1 2010 Top Financings

| COMPANY | TICKER | CAPITAL RAISED (USD M) | PRINCIPAL FOCUS |
|---|--------|------------------------|-----------------------------|
| VENTURE | | | |
| IkaSystems | | 120.0 | Healthcare management IT |
| Archimedes Pharma (United Kingdom) | | 98.5 | Pain |
| Intuity Medical | | 64.0 | Diagnostics |
| Tandem Diabetes Care | | 52.0 | Medical devices |
| NGM Biopharmaceuticals | | 51.0 | Metabolic |
| Enerkem (Canada) | | 50.9 | Biofuels |
| TransMedics | | 36.0 | Medical devices |
| Genetix Pharmaceuticals | | 35.0 | Gene/cell therapy |
| Alnara Pharmaceuticals | | 35.0 | Metabolic |
| Eleven Biotherapeutics | | 35.0 | Autoimmune |
| Pulmonx | | 31.6 | Respiratory Medical devices |
| Merus (Netherlands) | | 30.7 | Antibodies |
| PatientSafe Solutions | | 30.0 | Healthcare IT |
| Elevation Pharmaceuticals | | 30.0 | Drug delivery |
| Neomend | | 30.0 | Wound management |
| PatientSafe Solutions | | 30.0 | Patient safety |
| CeQur (Switzerland) | | 29.6 | Drug delivery |
| Oxford Nanopore Technologies (United Kingdom) | | 28.0 | Molecule identification |

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Q1 2010 Top Financings

| COMPANY | TICKER | CAPITAL RAISED (USD M) | PRINCIPAL FOCUS |
|----------------------------------|-------------|------------------------|------------------------------|
| PhaseBio Pharmaceuticals | | 25.3 | Protein platform |
| Intrexon | | 25.0 | Genetic engineering |
| VentiRx Pharmaceuticals | | 25.0 | Oncology |
| moksa8 Pharmaceuticals (Brazil) | | 25.0 | Neurology |
| Intercept Pharmaceuticals | | 25.0 | Metabolic |
| SymBio Pharmaceuticals (Japan) | | 24.4 | Oncology |
| CircuLite | | 22.5 | Cardiovascular |
| IPOS | | | |
| Ironwood Pharmaceuticals | IRWD | 215.6 | Gastrointestinal |
| AVEO Pharmaceuticals | AVEO | 89.7 | Oncology |
| Anthera Pharmaceuticals | ANTH | 46.2 | Inflammatory |
| CellSeed (Japan) | Jasdaq:7776 | 24.8 | Regenerative medicine |
| CorMedix | CRMD-U | 13.5 | Therapeutics |
| Cbio (Australia) | ASX:CBZ | 6.2 | Therapeutics |
| PIPES | | | |
| Biovitrum (Sweden) | SSE:BVT | 212.4 | Hematology |
| Lexicon Pharmaceuticals | LXRX | 75.0 | Neurology; autoimmune |
| China Medicine (China) | OTC:CHME | 69.6 | Traditional Chinese Medicine |
| Bavarian Nordic (Denmark) | CSE:BAVA | 59.0 | Infectious, cancer |
| Wex Pharmaceuticals (Canada) | TSX:WXI | 32.6 | Neurology |
| Cell Therapeutics | CTIC | 30.0 | Oncology |
| GenVec | OTC:GNVC | 28.0 | Oncology |
| Genta | OTC:GETA | 25.0 | Oncology |
| PROLOR Biotech (Israel) | OTC:PBTH | 24.4 | Endocrine |
| BioInvent International (Sweden) | SSE:BINV | 20.8 | Cardiovascular |
| Epigenomics (Germany) | Xetra:ECX | 20.6 | Diagnostics |
| Cell Therapeutics | CTIC | 20.0 | Oncology |
| Spectral Diagnostics (Canada) | TSX:SDI | 19.5 | Sepsis diagnostics |
| ADVENTRX Pharmaceuticals | ADVX | 19.0 | Oncology |
| Amicus Therapeutics | FOLD | 18.5 | Biopharmaceuticals |
| Chelsea Therapeutics | CHTP | 18.2 | Biopharmaceuticals |
| BioSante Pharmaceuticals | BPAX | 18.0 | Women's health |
| YM BioSciences (Canada) | TSX:YM | 17.5 | Oncology |
| Solta Medical | SLTM | 17.2 | Aesthetics |
| Anthera Pharmaceuticals | ANTH | 17.1 | Inflammatory |
| FOLLOW-ONS | | | |
| AMAG Pharmaceuticals | AMAG | 173.7 | Anemia |
| Mindray Medical (China) | MR | 152.8 | Medical devices |
| Lexicon Pharmaceuticals | LXRX | 111.0 | Neurology; autoimmune |
| Theravance | THRX | 99.2 | Infectious |

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Q1 2010 Top Financings

| COMPANY | TICKER | CAPITAL RAISED (USD M) | PRINCIPAL FOCUS |
|------------------------------|---------------|------------------------|---------------------------|
| InterMune | ITMN | 98.7 | Pulmonary |
| ZymoGenetics | ZGEN | 96.6 | Oncology |
| Centene | CNC | 96.3 | Supply/service |
| Micromet | MITI | 80.5 | Technology |
| Ablynx (Belgium) | Euronext:ABLX | 78.9 | Autoimmune |
| Dyax | DYAX | 63.5 | Inflammatory, oncology |
| Sinovac Biotech (China) | SVA | 57.5 | Vaccines |
| Somaxon Pharmaceuticals | SOMX | 56.9 | Insomnia |
| Optimer Pharmaceuticals | OPTR | 46.8 | Infectious |
| Vernalis (United Kingdom) | LSE:VER | 45.4 | Neurology |
| Pharmasset | VRUS | 34.3 | Hepatitis C |
| Synta Pharmaceuticals | SNTA | 28.8 | Oncology |
| Epigenomics (Germany) | Xetra:ECX | 24.0 | Diagnostics |
| Labopharm (Canada) | TSX:DDS | 23.0 | Improved biologics |
| Neurocrine Biosciences | NBIX | 23.0 | Neurology |
| Achillion Pharmaceuticals | ACHN | 21.4 | Infectious |
| DEBT | | | |
| Medtronic | MDT | 3,000.0 | Medical devices |
| Life Technologies | LIFE | 1,500.0 | Supply/service |
| Stryker | SYK | 500.0 | Medtech |
| Prometheus Laboratories | Private | 260.0 | Diagnostics |
| Waters | WAT | 100.0 | Supply/service |
| Waters | WAT | 100.0 | Supply/service |
| Rentech Energy | RTK | 62.5 | Renewable Fuels |
| Vical | VICL | 25.0 | DNA delivery |
| Cardiome Pharma (Canada) | TSX:COM | 25.0 | Cardiovascular |
| Poniard Pharmaceuticals | PARD | 20.0 | Oncology |
| Dynavax Technologies | DVAX | 20.0 | Infectious |
| Orexo (Sweden) | SSE:ORX | 15.3 | Neurology |
| Unigene Laboratories | OTC:UGNE | 13.6 | Drug delivery |
| Pharming Group (Netherlands) | AMS:PHARM | 10.8 | Genetic disorders |
| Allon Therapeutics (Canada) | TSX: NPC | 9.5 | Therapeutics |
| GTC Biotherapeutics | GTCB | 7.0 | Proteins from transgenics |

Stage Is Set for Robust M&A

Pharma companies continue to be the strongest players in M&A

By Marie Daglian

Positive M&A activity during the first quarter 2010 sets the stage for a strengthening of deal activity for the rest of the year, especially in light of several upcoming regulatory and clinical events that could lead to a renewed interest in biotech acquisitions on the part of pharmaceutical companies. They continue to be the

With the acquisition, Teva becomes the leading generic drugmaker in Europe, increasing its sales there.

strongest players in life sciences M&A.

The year had hardly begun when Novartis exercised its option to purchase the rest of Nestle's stake in Alcon for \$28.1 billion, making Novartis the owner of approximately 77 percent of the global eye care company.

Novartis was also seeking to acquire the 23 percent of Alcon it does not own by offering minority shareholders 2.8 shares of Novartis for each Alcon share. That would value the transaction at \$153 a share or another \$11.2 billion.

Most of the quarter's M&A activity was cross-border. German pharmaceutical and chemical giant Merck KGaA outbid Thermo Fisher Scientific to buy U.S. lab supplier Millipore for \$107 per share in cash, or a total transaction value, including net debt of approximately \$7.2 billion.

Merck's executive chairman Karl-Ludwig Kley said the combination would be an excellent strategic fit and would enhance the value of the company beyond its current base. Merck's chemicals division generates about 25 percent of total revenues, which will increase to 35 percent following the transaction.

Merck will maintain Millipore's senior management and its headquarters in Billerica, Massachusetts and com-

bine it with Merck's U.S. chemicals headquarters. The company expects that the combined business will generate annual savings of around \$100 million a year that will be realized within three years of the closing of the transaction.

Cephalon expanded into the generic drug business with its acquisition of privately-owned Swiss drugmaker Mepha for \$590 million, gaining access to more than 120 products sold in 50 countries, potentially doubling Cephalon's global business. Mepha was owned by Germany's Merckle family which also had another generics company Ratiopharm up for sale.

After much speculation and interest, including reports that Pfizer had made an offer, Israeli generics powerhouse Teva Pharmaceuticals acquired Ratiopharm for an enterprise value of €3.625 billion, or nearly \$5 billion. Ratiopharm is also the sixth largest generic drug company worldwide with a portfolio of over 500 molecules covering all major therapeutic areas that are marketed in 26 countries. Ratiopharm also has several biosimilar products in late-stage development.

With the acquisition, Teva becomes the leading generic drugmaker in Europe, increasing its sales there from \$3.3 billion in 2009 to joint pro forma sales of \$5.2 billion. In Germany, the second largest generic market in the world, it will be second to Novartis' Sandoz, and it will be able to expand in growing generic markets such as Spain, Italy, and France. Teva is funding the acquisition through a combination of cash on hand and lines of credit and expects it to close in the second half of 2010.

And Abbott Laboratories stepped in as Facet Biotech's white knight, buying the company for \$722 million, or \$27 a share, well above the \$17.50 final offer of Biogen Idec in December 2009. The acquisition provides Abbott with a pipeline of biologics in immunology and oncology, including daclizumab, a biologic treatment

for multiple sclerosis that will enter late-stage testing this year, as well as several oncology compounds in early- to mid-stage development. The transaction is expected to close in the second quarter of 2010.

Partnering

The first quarter's largest partnership deal in terms of value took place in the biofuels arena and was an energy deal struck between international oil company Royal Dutch Shell and Brazilian ethanol producer Cosan. The companies will form a \$12 billion joint venture for the production of ethanol, sugar and power, and the supply, distribution and retail of transportation fuels.

Both companies will contribute certain existing assets to the joint venture and Shell will invest a total of \$1.6 billion in cash. Cosan will fold most of its assets except for its lubricants activities into the joint venture, including 60 million tons of sugarcane crushing capacity in 23 mills, 2 billion liters of ethanol production capacity, seven existing plants and five under construction, more than 1,700 retail outlets, and \$2.5 billion net debt.

Shell will contribute approximately 2,740 branded gas stations, supply and distribution assets, its aviation fuel business, its 50 percent stake in Canadian cellulosic ethanol producer Iogen, and its 14.7 percent interest in U.S. specialty enzyme company Codexis. Its lubricants activities would not be included.

A drug discovery deal and a late-stage rheumatoid arthritis therapy licensing pact were the two largest pharma/biotech partnering deals in the first quarter. GlaxoSmithKline and Isis Pharmaceuticals formed a strategic alliance focused on RNA therapeutics for rare and infectious diseases. Isis will apply its antisense drug discovery platform to discover and develop new therapeutics against targets for rare and serious disease, including some infectious diseases and conditions caus-

M&A stage is set

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ing blindness.

The alliance is potentially worth up to \$1.5 billion to Isis and covers up to six programs. GSK will pay Isis \$35 million upfront and up to \$20 million in milestones per program up to phase 2 proof-of-concept. GSK has the option to license compounds at proof-of-concept, and will be responsible for all further development and commercialization. Isis is eligible to receive license fees and milestone payments, up to \$1.5 billion if all programs are successfully developed for one or more indications and commercialized.

AstraZeneca struck a \$1.2 billion licensing deal with Rigel Pharmaceuticals for exclusive worldwide rights to Rigel's oral spleen tyrosine kinase inhibitor R788 late stage treatment for rheumatoid arthritis.

The deal disappointed investors,

who sent Rigel's share price down 16 percent on the news. A big chunk of the \$1.2 billion comes in the form of specified sales related milestones if the product achieves "considerable" levels of commercial success, levels that remained undisclosed. As a clinical stage company, Rigel has no revenue and needs the \$100 million upfront cash from AstraZeneca.

Besides \$100 million upfront, Rigel is eligible for up to an additional \$345 million payable if specified development, regulatory, and first commercial sale milestones are achieved. Rigel is also eligible for up to \$800 million in sales related milestones and stepped up double-digit royalties on worldwide sales. AstraZeneca will assume responsibility for further development of R788 and will also receive exclusive rights to the South San Francisco-based biotech's portfolio of oral Syk inhibitors, as well as for additional indications for R788 beyond RA.

One of the most interesting deals was the pharmaceutical partnership

among Eli Lilly, Merck, and Pfizer to form an independent, not-for-profit company, the Asian Cancer Research Group, to accelerate research and ultimately improve treatment for patients affected with the most commonly-diagnosed cancers in Asia. The new company is another example of a growing trend in pre-competitive collaboration among the big pharmaceutical companies to combine their resources and expertise to rapidly increase knowledge of disease and disease processes.

Initially, the Asian Cancer Research Group will focus on lung and gastric cancers, two of the most common forms of cancer in Asia. Over the next two years, Lilly, Merck and Pfizer have committed to creating an extensive pharmacogenomic cancer database. Lilly will be responsible for ultimately providing the data to the research public through an open-source concept managed by Lilly's Singapore research site. All three pharmas will each provide technical and intellectual expertise. ■

Q1 2010 Top M&A

| ACQUIRER | TARGET | DEAL VALUE (USD M) | PRINCIPAL FOCUS | RATIONALE/PRINCIPAL ASSET |
|--------------------------------|------------------------------|--------------------|------------------------------|--|
| Novartis (Switzerland) | Alcon (Switzerland) | 39,000 | Ophthalmology | Complements Novartis' Lucentis franchise; adds \$6.3 B in global sales of OTC, prescription, and surgical eye care products |
| Merck KGaA (Germany) | Millipore | 7,200 | Supply/service | Millipore contributes complementary high-margin specialty products to increase Merck's chemicals business from 25 to 35 percent of sales and offering integrated solutions |
| Teva Pharmaceuticals (Israel) | Ratiopharm (Germany) | 4,920 | Generics | Teva now leading generic drugmaker in Europe and gains several biosimilars in development |
| Perrigo | PBM Holdings | 808 | Infant formula | OTC and generics drugmaker Perrigo expands global reach into Mexico and China, and adds complementary product category |
| Abbott Laboratories | Facet Biotech | 722 | Multiple sclerosis, Oncology | Daclizumab for multiple sclerosis entering late-stage testing this year and several oncology compounds in early- to mid-stage development |
| AstraZeneca (UK) | Merck's partnership interest | 647 | Gastrointestinal | Exercises option to acquire non-proton pump inhibitor products Atacand, Lexxel, Plendil, Entocort, and certain products in clinical development |
| Cephalon | Mepha (Switzerland) | 590 | Generics | Diversify product line and expand internationally |
| Medtronic | Invatec | 500 | Medtech | Peripheral vascular disease--expands products and pipeline for cardiovascular interventions |
| Boehringer Ingelheim (Germany) | SSP (Japan) | 365 | OTC drugs | Expansion of OTC business and synergies through acquisition of partly owned Japanese partner |

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Q1 2010 Top M&A

| ACQUIRER | TARGET | DEAL VALUE (USD M) | PRINCIPAL FOCUS | RATIONALE/PRINCIPAL ASSET |
|-------------------------------|---|--------------------|------------------------|---|
| BioScrip | Critical Homecare Solutions | 343 | Healthcare | Creates leading provider of specialty pharmacy, home infusion, and home health care services in United States |
| Baxter International | ApaTech (UK) | 330 | Biomaterials | Actifuse, synthetic bone graft material marketed globally and R&D facilities in UK, US, and Germany |
| Inverness Medical Innovations | Standard Diagnostics (S Korea) | 286 | Diagnostics | Expands global presence and product line through acquisition of Korean rapid diagnostics maker with focus on infectious disease |
| Merz Pharma (Germany) | BioForm Medical | 253 | Medical Aesthetics | Advances Merz's strategy to become leader in aesthetic medicine, gains Radiesse dermal filler |
| Cephalon | Ception Therapeutics | 250 | Respiratory | Cephalon exercises option to acquire Ception after Cinquil (reilizumab) delivers positive phase 2 results as a treatment for asthma |
| Nipro (Japan) | Home Diagnostics | 215 | Diabetes Management | Nipro gets maker of diabetes testing products at 90 percent premium and gains access to US market for its medical devices |
| Martek Biosciences | Amerfit Brands | 200 | Nutraceuticals | Amerfit makes and markets women's and digestive health and wellness products; Martek gets platform for accelerating commercialization of its own nutritional product pipeline |
| Thermo Fisher Scientific | Ahura Scientific | 145 | Analytical instruments | Adds Ahura's portable chemical analytical devices--targeted to first responders--to Thermo's product portfolio |
| Quidel | Diagnostic Hybrids | 130 | Diagnostics | Broadens point-of-care diagnostics company Quidel's portfolio into complementary non-seasonal infectious and autoimmune diseases |
| Inverness Medical Innovations | Marsh & McLennan's Kroll Laboratory Specialists | 110 | Diagnostics | Substance abuse testing products and services in the US |
| BioMarin Pharmaceuticals | LEAD Therapeutics | 97 | Oncology | LT-673, orally available PARP inhibitor for treatment of patients with rare, genetically defined cancers |

Q1 2010 Top Partnering Deals

| COMPANY/LICENSEE | COMPANY/LICENSER | TOTAL DEAL VALUE (USD M) | UP-FRONT (USD M) | PRINCIPAL FOCUS | RATIONALE/PRINCIPAL ASSET |
|---------------------------------|-----------------------|--------------------------|------------------|---|---|
| Royal Dutch Shell (Netherlands) | Cosan (Brazil) | 12,000 | N/A | Biofuels Joint Venture | Strengthening Brazil's prominence in global bioethanol market and market leaders in Brazil |
| GlaxoSmithKline (UK) | Isis Pharmaceuticals | 1,500 | 35.0 | Rare Disease Collaboration and License Option | GSK gets access to expertise in discovery and development of anti-RNA therapeutics for rare and infectious diseases, right to license at proof-of-concept |
| AstraZeneca (UK) | Rigel Pharmaceuticals | 1,245 | 100.0 | Autoimmune disease License | Exclusive worldwide rights to fostamatinib disodium (R788), Rigel's oral Syk inhibitor in late-stage development as a treatment for rheumatoid arthritis |
| Sanofi-Aventis (France) | Merck | 1,000 | N/A | Animal Health Joint Venture | Creates leader in animal health, surpassing Pfizer's division if it clears antitrust issues |
| Novartis (Switzerland) | Transgene (France) | 960 | 10.0 | Cancer Vaccine License | TG4010 cancer immunotherapy for non-small cell lung cancer--Novartis will get phase 2b data and have 90 day option to license program |

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Q1 2010 Top Partnering Deals

| COMPANY/LICENSEE | COMPANY/LICENSER | TOTAL DEAL VALUE (USD M) | UP-FRONT (USD M) | PRINCIPAL FOCUS | RATIONALE/PRINCIPAL ASSET |
|---------------------------------|--|--------------------------|------------------|---|--|
| GlaxoSmithKline (UK) | Cellzome | 695 | 45.0 | Epigenetics License | Drug discovery pact for inflammatory diseases using Cellzome's technology; follows 2008 alliance to develop selective kinase inhibitors |
| Roche (Switzerland) | Galapagos (Belgium) | 580 | 8.7 | Respiratory Alliance and License Option | Roche gets option to license small molecules and antibodies to treat COPD |
| Astellas Pharma (Japan) | Basilea Pharma (Switzerland) | 513 | 70.0 | Antifungal License | Exclusive right to commercialize Basilea's azole antifungal agent isavuconazole in late-stage development |
| Bristol-Myers Squibb | Allergan | 413 | 40.0 | Pain License | Exclusive worldwide rights to develop, manufacture and commercialize AGN-209323, phase 2-ready, oral small molecule for neuropathic pain |
| Spectrum Pharmaceuticals | TopoTarget (Denmark) | 350 | 30.0 | Oncology License | 70/30 joint development and commercialization of belinostat, HDAC inhibitor in mid-stage development to treat various cancers as a monotherapy and in combination therapies |
| Eli Lilly | Acrux (Australia) | 335 | 50.0 | Genitourinary License | Exclusive worldwide rights to Axiron, experimental underarm testosterone solution under FDA review for treatment of testosterone deficiency in men |
| GlaxoSmithKline (UK) | Apeiron Biologics (Austria) | 330 | 16.3 | Respiratory License | Exclusive rights to APN01 (rhACE2) enzyme biotherapeutic in early stage development for treatment of Acute Respiratory Distress Syndrome |
| Sanofi Pasteur (Sanofi-aventis) | KaloBios Pharmaceuticals | 290 | 35.0 | Infectious disease Partnership | KB001, humaneered antibody fragment, for treatment or prevention of pseudomonas aeruginosa infections |
| Kyowa Hakko Kirin (Japan) | Reata Pharmaceuticals | 272 | Undisclosed | Renal License | Exclusive rights to develop and commercialize Reata's late-stage chronic kidney disease treatment bardoxolone in Japan and selected Asian markets |
| Ipsen (France) | Inspiration Biopharmaceuticals/Celtic Pharma | 259 | 85.0 | Hemophilia Partnership | Ipsen gains 20 percent stake in Inspiration with option to boost stake to 47 percent; licenses its OBI-1 hemophilia therapy to Inspiration for debt and royalty interest; partners to develop Inspiration's IB1001 |
| Boehringer Ingelheim (Germany) | 4-Antibody (Switzerland) | 244 | Undisclosed | Antibody Collaboration | Long term collaboration to use 4-Antibody's technology to discover and develop antibodies against Boehringer targets |
| Novartis (Switzerland) | GenVec | 214 | 7.0 | Gene therapy License/Collaboration | Gains license to GenVec's treatments for hearing loss and balance disorders through regeneration of sensory hair cells |
| Novartis Option Fund (Novartis) | Merus (Netherlands) | 200 | N/A | Oncology Collaboration/License Option | Equity investment and option to license pre-clinical oncology program |
| Novartis Option Fund (Novartis) | Viamet Pharmaceuticals | 200 | N/A | Metalloenzymes License | License option for development of novel metalloenzyme inhibitors that optimize safety and efficacy of drugs |
| Takeda Pharmaceuticals (Japan) | CellCentric (United Kingdom) | 200 | N/A | Epigenetics License | Exclusive license for novel epigenetic discovery program focused on cancer |
| Bausch & Lomb | NicOx (France) | 180 | 10.0 | Ophthalmic License | Exclusive worldwide rights to develop and commercialize NCX 116, for treatment of glaucoma and ocular hypertension, in phase 3 testing |

MARCH STATS

March Roared in Like a Lion, but Went Out Like a Lamb

Industry benefits from healthcare reform and robust general markets

By Marie Daghljan

After a quiet February, the month of March came roaring in like a lion for lifesciences deals and financings. Three U.S. companies—Anthera Pharmaceuticals, AVEO Pharmaceuticals and CorMedix—went public through share offerings that were priced below initial expectations [See First Quarter Financings Review]. Japanese regenerative medicine company CellSeed also made its public market debut in March through an offering that raised \$24.8 million. While the IPO window has opened, investor interest remains lukewarm, preferring products to promise.

Globally, life science companies, including therapeutics, diagnostics, tools and technology, digital health, industrial/agbio, and medical devices, raised nearly \$1.8 billion in the public markets during March, down 24 percent from the more than \$2.3 billion raised in February. Much of the decline came from a reduction in capital raised through debt offerings, which fell 82 percent from a little more than \$1.7 billion in February to only \$312 million raised through debt offerings in March. Capital raised through PIPEs and follow-on offerings showed significant gains, however. Globally, life science companies raised

\$327 million through PIPEs and \$818 million in follow-on offerings, up 74 percent and 422 percent from that raised in February.

The first week of March had a breakthrough venture capital financing as U.K.-based Archimedes Pharma broke a 15-year record for a European funding round, raising \$100 million from new investor Novo Growth Equity, the growth equity fund of Novo A/S, and current investor, Warburg Pincus [See First Quarter Financings Review]. Total global venture funding for the month came in at \$590 million, up 29 percent from the amount raised in February. ■

March 2010 Life Sciences Public Financings

| COMPANY | TICKER | AMOUNT RAISED (USD M) | PRINCIPAL FOCUS |
|---------------------------|-------------|-----------------------|-----------------------|
| IPOs | | | |
| AVEO Pharmaceuticals | AVEO | 89.7 | Oncology |
| Anthera Pharmaceuticals | ANTH | 46.2 | Inflammatory |
| CorMedix | CRMD-U | 13.5 | Diagnostics |
| Total US | | 149.4 | |
| CellSeed (Japan) | Jasdaq:7776 | 24.8 | Regenerative medicine |
| TOTAL IPOs | | 174.2 | |
| PIPEs | | | |
| Lexicon Pharmaceuticals | LXRX | 75.0 | Neurology; autoimmune |
| Genta | OTC:GETA | 25.0 | Oncology |
| BioSante Pharmaceuticals | BPAX | 18.0 | Women's health |
| Anthera Pharmaceuticals | ANTH | 17.1 | Inflammatory |
| Rxi Pharmaceuticals | RXII | 16.2 | RNAi |
| Senesco Technologies | SNTK | 11.5 | Oncology |
| Cardium Therapeutics | CXM | 11.3 | Cardiovascular |
| Provectus Pharmaceuticals | OTC:PVCT | 7.5 | Oncology |

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March 2010 Life Sciences Public Financings

| COMPANY | TICKER | AMOUNT RAISED (USD M) | PRINCIPAL FOCUS |
|-------------------------------|------------|-----------------------|-------------------|
| Oxigene | OXGN | 7.5 | Oncology, ocular |
| Interleukin Genetics | ILI | 5.3 | Genetic testing |
| TearLab (OccuLogix) | TEAR | 5.0 | Diagnostics |
| Solta Medical | SLTM | 4.8 | Dermatology |
| Response Genetics | RGDX | 4.0 | Diagnostics |
| CytoDyn | OTC:CYDY | 3.0 | Immunotherapy |
| Arrayit | ARYC | 2.9 | Scanners |
| Manhattan Pharmaceuticals | OTC:MHAN | 2.5 | Pharmaceuticals |
| Akorn | AKRX | 2.5 | Generics |
| DARA BioSciences | DARA | 1.7 | Drug development |
| IGI Laboratories | NYSE-A:IG | 1.6 | Drug delivery |
| NovaDel Pharma | OTC:NVDL | 1.5 | Drug delivery |
| Med Gen | MGNI | 1.3 | Medical devices |
| Medgenics | LSE:MEDG | 1.1 | Gene/cell therapy |
| Aethlon Medical | OTC:AEMD | 0.6 | Medtech |
| Pressure BioSciences | PBIO | 0.5 | Supply/service |
| Pro-Pharmaceuticals | OTC:PRWP | 0.3 | Therapeutics |
| Bioheart | BHRT | N/A | Gene/cell therapy |
| Total US | | 227.6 | |
| YM BioSciences (Canada) | TSX:YM | 35.0 | Oncology |
| PROLOR Biotech (Israel) | OTC:PBTH | 24.4 | Endocrine |
| Epigenomics (Germany) | Xetra:ECX | 20.6 | Diagnostics |
| Agennix (Germany) | Xetra:AGX | 13.2 | Oncology |
| ReNeuron (United Kingdom) | LSE:RENE | 7.0 | Gene/cell therapy |
| Protox Therapeutics (Canada) | TSX:PRX | 5.0 | Oncology |
| Diamyd Medical | SSE:DIAM B | 4.8 | Diabetes |
| Bionix (Canada) | TSX:BTX | 2.5 | Orthopedics |
| SemBioSys Genetics (Canada) | TSX:SBS | 1.7 | Endocrine |
| MabCure (Belgium) | OTC:MBCI | 1.0 | Antibodies |
| Bradmer Pharmaceuticals | TSX:BMR | 0.8 | Oncology |
| CardioComm Solutions (Canada) | TSX-V:EKG | 0.5 | Medtech |
| Total Ex US | | 116.5 | |
| TOTAL PIPES | | 343.1 | |

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March 2010 Life Sciences Public Financings

| COMPANY | TICKER | AMOUNT RAISED (USD M) | PRINCIPAL FOCUS | |
|---------------------------------------|---------------|-----------------------|------------------------|-----------------------------|
| FOLLOW-ONS | | | | |
| Lexicon Pharmaceuticals | LXRX | 111.0 | Neurology; autoimmune | |
| Theravance | THRX | 99.2 | Infectious | |
| Micromet | MITI | 80.5 | Technology | |
| Green Plains Renewable Energy | GPRE | 79.3 | Biofuels | |
| Somaxon Pharmaceuticals | SOMX | 56.9 | Insomnia | |
| Dyax | DYAX | 63.5 | Inflammatory, oncology | |
| Neurocrine Biosciences | NBIX | 23.0 | Neurology | |
| Total US | | 513.4 | | |
| Mindray Medical (China) | MR | 152.8 | Medical devices | |
| Ablynx (Belgium) | Euronext:ABLX | 78.9 | Autoimmune | |
| Vernalis (United Kingdom) | LSE:VER | 45.4 | Neurology | |
| Epigenomics (Germany) | Xetra:ECX | 24.0 | Diagnostics | |
| Allergy Therapeutics (United Kingdom) | LSE:AGY | 3.2 | Inflammatory | |
| Total Ex US | | 304.3 | | |
| TOTAL FOLLOW-ONS | | 817.7 | | |
| DEBT | | | | |
| Medtronic | MDT | 3,000.0 | Medical devices | |
| Waters | WAT | 100.0 | Supply/service | |
| Unigene Laboratories | OTC:UGNE | 13.6 | Drug delivery | |
| Senetek | SNTK | 3.0 | Therapeutics | |
| Helix BioMedix | OTC:HXBM | 2.9 | Therapeutics | |
| Radiant Pharmaceuticals | RPC | 0.9 | Specialty pharma | |
| Total US | | 3,120.4 | | |
| Orexo (Sweden) | SSE:ORX | 15.3 | Neurology | |
| Allon Therapeutics (Canada) | TSX: NPC | 9.5 | Therapeutics | |
| Total Ex US | | 24.8 | | |
| TOTAL DEBT | | 3,145.2 | | |
| OTHER FINANCINGS | | | | |
| COMPANY | TICKER | AMOUNT RAISED (USD M) | PRINCIPAL FOCUS | DESCRIPTION OF FINANCING |
| Kendle International | KNDL | 35.0 | CRO | Credit facility |
| NxStage Medical | NXTM | 15.0 | Dialysis | Credit facility |
| NeuroMetrix | NURO | 7.5 | Medical devices | Credit facility |
| ARCA biopharma | ABIO | 6.8 | Cardiovascular | Equity based line of credit |

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March 2010 Life Sciences Public Financings

| COMPANY | TICKER | AMOUNT RAISED (USD M) | PRINCIPAL FOCUS | |
|--------------------------------|--------------|-----------------------|------------------|--|
| Poniard Pharmaceuticals | PARD | 6.3 | Oncology | Equity based credit facility |
| Fibrocell Science | OTC:FCSC | 3.8 | Regenerative med | Securities Purchase Agreement |
| CytRx | CYTR | 3.8 | RNAi | Share buyback by Rxi |
| Celulas Genetica | Private | 1.8 | Stem cells | Funding in exchange for percentage of future profits |
| NeoStem | NBS | 1.8 | Stem cells | Warrant exercise |
| NexMed | NEXM | 1.4 | CRO | Mortgage refinance |
| Total US | | 83.2 | | |
| Wilex (Germany) | Xetra:WL6 | 27.1 | Oncology | SEDA |
| Vectura Group (United Kingdom) | LSE:VEC | 25.0 | Respiratory | Loan facility |
| MethylGene (Canada) | TSX:MYG | 8.9 | Oncology | Non-dilutive financing |
| Ubiquigent (United Kingdom) | Private | 4.5 | Supply/service | Investment by Stemgent over 3 years |
| BioAMD (United Kingdom) | Private | 1.3 | Point-of-care | Investment by Flex Fuels Energy |
| ThromboGenics (Belgium) | Euronext:THR | 0.8 | Cardiovascular | Warrant exercise |
| NeuroSearch (Denmark) | CSE:NEUR | 0.6 | Neurology | Warrant exercise |
| Total Ex US | | 68.2 | | |
| TOTAL OTHER FINANCINGS | | 151.3 | | |

March 2010 Venture Capital Financings

| COMPANY | AMOUNT RAISED (USD M) | PRINCIPAL FOCUS | FINANCING ROUND | INVESTORS |
|-------------------------|-----------------------|---------------------|-----------------|--|
| NGM Biopharmaceuticals | 51.0 | Metabolic | Series B | The Column Group, Tichenor Ventures, Prospect Venture Partners, Rho Ventures, other new and existing investors |
| TransMedics | 36.0 | Medical devices | | Foundation Capital; Kleiner Perkins Caufield & Byers; Flagship Ventures; existing investors |
| Genetix Pharmaceuticals | 35.0 | Gene/cell therapy | Series B | Third Rock Ventures; Genzyme Ventures; TVM (Takeda) Capital; Forbion, Easton Capital |
| Cartcept Medical | 20.0 | Orthopedics | Series B | SonoSite; Domain Associates; New Enterprise Associates |
| OriGene Technologies | 16.0 | Antibodies | Series B | IDG-Accel, SBI & TH Venture Capital Enterprise, Zero2IPO, Morningside Venture Investments, President International Development |
| Aurora Biofuels | 15.0 | Algae biofuels | Series C | Oak Investment Partners, Gabriel Ventures Partners, Noventi |
| Genomatica | 15.0 | Renewable chemicals | Series C | TPG Biotechnology Partners, Mohr Davidow Ventures, Alloy Ventures, Draper Fisher Jurvetson |
| Reverse Medical | 14.0 | Medical devices | Series B | Wexford Capital, Getz Bros., BioStar Ventures, Early Stage Partners, Emergent Medical Partners, NBGI Ventures, MedFocus Funds, South Australian Life Science Advancement Partnership |

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March 2010 Venture Capital Financings

| COMPANY | AMOUNT RAISED (USD M) | PRINCIPAL FOCUS | FINANCING ROUND | INVESTORS |
|-------------------------|-----------------------|------------------------|--------------------------------|---|
| Vaxart | 12.5 | Oral Vaccines | Series B | Care Capital, existing investors |
| Promedior | 12.0 | Inflammatory | Series C | Forbion Capital Partners, Morgenthaler Ventures, Health-Care Ventures, Polaris Venture Partners, Easton Capital |
| Awarepoint | 10.0 | Wireless health | Series E | JAFCO Ventures, Cardinal Partners, Venrock Associates |
| U-Systems | 10.0 | Ultrasound medtech | --- | iD SoftCapital Group, Sycamore Ventures, Lumira Capital, Radius Ventures, PIH |
| Hemisphere | 9.4 | Medical devices | Series A-1 recap | Kaiser Permanente Ventures, Three Arch partners, Ascension Health Ventures, Affinity Capital Management, Cutlass Capital, Sapien Capital Management |
| Fluidnet | 9.1 | Infusion pumps | --- | Cardinal Partners; Rockport Venture Partners; existing investors |
| Saladax Biomedical | 8.4 | Diagnostics | Series C | Golden Seeds, Ben Franklin Technology Partners, Life Sciences Greenhouse of Central Pennsylvania, angel investors |
| Zafgen | 8.1 | Obesity | Series B | Third Rock Ventures, Atlas Venture |
| SensAble Technologies | 8.0 | Digital dentistry | --- | HLM Ventures; North Bridge Venture Partners |
| Tocagen | 7.8 | Gene/cell therapy | Series D | Undisclosed |
| Aureon Laboratories | 7.0 | Cancer analytics | Part of \$18 million round | Atlas Venture, New Leaf Venture Partners, Pfizer |
| Omthera Pharmaceuticals | 6.5 | Metabolic | Series A | Sofinnova Partners led round |
| Nuon | 6.1 | Autoimmune | --- | Frazier Healthcare Ventures, Domain Associates, GBS Venture Partners |
| Nodality | 5.5 | Diagnostics | Final tranche of \$15.5M round | Pfizer Ventures, LabCorp |
| Adaptive TCR | 4.5 | Sequencing technology | Seed stage | Angel investors |
| AccuDial Pharmaceutical | 4.0 | OTC drugs | Series A | Management and Board of Directors |
| Anulex Technologies | 3.8 | Medical devices | Debt and options | Undisclosed |
| Eureka Genomics | 3.7 | Genomics | Seed stage | Angel investors |
| Biocept | 3.6 | Diagnostics | --- | Undisclosed |
| Odyssey Thera | 3.5 | Personalized medicine | --- | Burrill Investment Committee, Merck |
| Presage Biosciences | 3.1 | Supply/service | --- | Individual investors, angel investors |
| Cleveland HeartLab | 3.0 | Clinical reference lab | --- | Glengary; Second Generation; Zapis Capital Group; local business leaders |
| Tocagen | 3.0 | Gene/cell therapy | Preferred shares | Undisclosed |
| Isis Biopolymer | 3.0 | Drug delivery | --- | Undisclosed |
| Limeade | 3.0 | Employee health | --- | Undisclosed |
| Cyntellect | 3.0 | Cellular analysis | Equity, debt, options | Undisclosed |
| EMKinetics | 2.8 | Medtech | Part of \$3.35M round | WS Investment, TheraNova, angel investors |
| Counsyl | 2.2 | Genetic testing | --- | Undisclosed |
| iTech Medical | 2.2 | Healthcare IT | --- | European investor |
| Auspex Pharmaceuticals | 2.0 | Improved biologics | Notes and warrants | Undisclosed |
| SmartCells | 1.8 | Medical devices | Part of \$4 million round | Undisclosed |

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March 2010 Venture Capital Financings

| COMPANY | AMOUNT RAISED (USD M) | PRINCIPAL FOCUS | FINANCING ROUND | INVESTORS |
|---------------------------------------|-----------------------|-------------------------|-----------------------|---|
| Endpoint Clinical | 1.7 | Healthcare IT | Equity, debt, options | Undisclosed |
| Theraclone Sciences | 1.5 | Infectious | --- | Undisclosed investor |
| Elcelyx | 1.2 | Therapeutics | Seed stage | Morgenthaler Ventures |
| Castle Biosciences | 1.1 | Diagnostics | --- | Undisclosed investors |
| Pico-Tesla | 1.0 | Medtech | Series A | Undisclosed |
| Ampla Pharmaceuticals | 0.3 | Therapeutics | Stealth mode | Undisclosed |
| Thermalin Diabetes | 0.3 | Diabetes | Seed stage | JumpStart Ventures |
| Cibus Global | 0.2 | Crop traits | Seed stage | Undisclosed |
| Gold Standard Diagnostics | n/a | Diagnostics | Series A | Undisclosed |
| Bone Biologics | n/a | Orthobiologics | --- | Musculoskeletal Transplant Foundation (now owns 51% of company) |
| Rhythm Pharmaceuticals | n/a | Metabolic | Series A | MPM Capital, New Enterprise Associates |
| TOTAL US VENTURE FINANCINGS | 381.7 | | | |
| Archimedes Pharma | 98.5 | Pain | --- | Novo Growth Equity (Novo A/S), Warburg Pincus |
| Cheetah Medical (Israel) | 20.0 | Medtech | Series B | Ascension Health Ventures, Robert Venture Capital, MVM Life Science Partners |
| BT Pharma/Genticeal (France) | 17.7 | Immunotherapy | --- | AGF Private Equity; IRDI (Institut Regional de Developpement Industriel), Amundi Private Equity Funds, InnoBio Fund; Edmond de Rothschild Investment Partners |
| Antisense Pharma (Germany) | 17.7 | Oncology | --- | MIG Funds; Global Asset Fund; company management; private investors |
| SpePharm (Netherlands) | 15.0 | Oncology | Equity and debt | TVM Capital; Signet Healthcare; Paul Capital Healthcare; Paladin Labs |
| Myotec Therapeutics | 8.5 | Musculoskeletal | Series A | Imperial Innovations Group, Invesco Perpetual |
| Aquapharm Biodiscovery | 6.3 | Antibiotics | --- | Aescap Venture, Tate & Lyle Ventures, Highlands and Islands Enterprise, NESTA |
| Chakra Biotech (Malaysia) | 5.7 | CRO | Series B | Malaysian Life Sciences Capital Fund, Malaysian Technology Development Corporation |
| Veryan Holdings | 5.4 | Stents | --- | Seroba Kernel; Imperial Innovations; Oxford Capital Partners; NESTA |
| Signostics (Australia/US) | 5.0 | Ultrasound | --- | Undisclosed |
| Affectis Pharmaceuticals (Germany) | 4.4 | Neurology, inflammatory | Series D, 1st tranche | LSP, Aescap Venture, KfW, Bayernkapital, EMBL Ventures |
| Venn Life Sciences (Ireland) | 3.0 | CRO | --- | Private investors |
| Oval Medical | 0.7 | Supply/service | Seed stage | Team Consulting, The Cambridge Angels, Cambridge Capital Group |
| TOTAL EX US VENTURE FINANCINGS | 207.9 | | | |
| TOTAL VENTURE FINANCINGS | 589.6 | | | |

March 2010 M&A and Partnering

Busy month for life sciences dealmaking

Three sizeable acquisitions marked a strong month for life sciences M&A: German pharmaceuticals and chemicals giant Merck KGaA's acquisition of U.S. lab supplier Millipore for a total transaction value of \$7.2 billion; Teva Pharmaceuticals' acquisition of German generic drug company Ratiopharm for an enterprise value of \$4.9 billion, and Abbott Laboratories' acquisition of Facet Biotech for a total transaction value of \$722 million [See *First Quarter M&A and Partnering Review*]. There had been speculation about who would be the successful suitor in all three of these unions, with Merck winning out over Thermo Fisher Scientific, Teva outbidding Pfizer, and Abbott saving Facet from a failed takeover bid by Biogen Idec.

Japanese pharmaceutical company Astellas also made a bid for an American biotech company. One year after losing out to Gilead in its attempt to takeover CV Therapeutics, Astellas made a \$3.5 billion hostile bid for OSI Pharmaceuticals—going directly to shareholders with an offer of \$52 per share, a 31 percent premium to its 52-week high. OSI's stock surged following

the offer. OrbiMed, a major stockholder of OSI shares, though, said that it wants \$60 a share. OSI's prize is the cancer drug Tarceva, which OSI markets in partnership with Roche. Astellas has extended its offer period to May 15. OSI shares traded at \$59.55 on March 31.

Pharma/biotech partnering continued its strong pace in March. Two partnering deals focused on RNA targeted therapeutics. In the biggest deal, Glaxo-SmithKline and Isis Pharmaceuticals formed a strategic alliance focused on RNA therapeutics for rare and infectious diseases that could be worth as much as \$1.5 billion to Isis [See *First Quarter M&A and Partnering Review*].

Dicerna Pharmaceuticals signed its second RNAi partnership in 2010, with French biopharma Ipsen for the development of new therapeutics in endocrinology and oncology. The collaboration will combine Ipsen's expertise in peptide engineering that allows cell-specific, intracellular delivery with Dicerna's Dicer Substrate Technology to silence disease-causing genes. Although financial terms were not disclosed, the deal allows Ipsen and Dicerna to share profits and expenses. In January, Dicer-

na entered into a licensing agreement with Japanese pharmaceutical company Kyowa Hakko Kirin for the discovery and development of new cancer therapeutics that gave the company \$4 million upfront and could lead to \$1.4 billion in total payments if all ten programs are completed and commercialized.

Swiss biopharmaceutical company Novartis is paying French biotech Transgene \$10 million upfront for an option for a worldwide license to its TG4010 experimental cancer vaccine. If Novartis exercises the option, Transgene will be eligible for as much as \$950 million in milestones and royalties. Transgene had been looking to partner the drug for more than a year to help develop TG4010, which has been granted fast-track status by the U.S. Food and Drug Administration. On the downside, Transgene will have to shoulder development costs for another two years when the first results of a mid-stage trial testing the vaccine in patients with non-small cell lung cancer will be reported. Novartis wants to see the outcome of the trial before exercising its option.

March 2010 M&A

| COUNTRY/COUNTRY | ACQUIRER | TARGET | DEAL VALUE (USD M) | PRINCIPAL FOCUS |
|------------------------------|---------------------------|------------------------------|--------------------|------------------------------|
| Germany/United States | Merck KGaA | Millipore | 7,200.0 | Supply/service |
| Israel/Germany | Teva Pharmaceuticals | Ratiopharm | 4,920.0 | Generics |
| United States | Perrigo | PBM Holdings | 808.0 | Infant formula |
| United States | Abbott Laboratories | Facet Biotech | 722.0 | Multiple sclerosis; oncology |
| United Kingdom/United States | AstraZeneca | Merck's partnership interest | 647.0 | Gastrointestinal |
| United States/United Kingdom | Baxter International | ApaTech | 330.0 | Biomaterials |
| Taiwan/United States | Uni-President Enterprises | Watson Pharmaceuticals | 94.0 | Supply/service |
| United States | Watson Pharmaceuticals | Columbia Laboratories | 92.5 | Genitourinary |
| Canada/Germany | ATS Automation | Sortimat Group | 62.0 | Medtech |

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March 2010 M&A

| COUNTRY/COUNTRY | ACQUIRER | TARGET | DEAL VALUE (USD M) | PRINCIPAL FOCUS |
|---------------------------|--------------------------------|-----------------------------|--------------------|---------------------------|
| United States/Australia | Perrigo | Orion Laboratories | 48.0 | OTC drugs |
| United States | DRI Capital | NPS Pharmaceuticals | 38.4 | Renal |
| Israel/United States | Given Imaging | Sierra Scientific | 35.0 | Diagnostics |
| United States/Brazil | Valeant Pharmaceuticals | Unnamed private company | 28.0 | Generics |
| Canada/United States | Biovail | Cortex Pharmaceuticals | 25.0 | Respiratory |
| United States | Covidien | Orthofix International | 19.0 | Medical devices |
| Canada/South Africa | Paladin Labs | Pharmaplan | 15.6 | Specialty pharma |
| United States | Repligen | BioFlash Partners | 1.8 | Chromatography |
| S Korea/Denmark | Kael | Affitech | 1.0 | Oncology |
| United States | Manhattan Pharmaceuticals | Ariston Pharmaceuticals | 0.6 | Metabolic, neurology |
| United States | Adamis Pharmaceuticals | Colby Pharmaceuticals | 0.4 | Oncology |
| Netherlands/Denmark | SpePharm | TopoTarget | n/a | Cancer side effects |
| Switzerland/United States | Roche Diagnostics | BioMicro Systems | n/a | Diagnostics |
| United States | Elanco (Eli Lilly) | Pfizer Animal Health | n/a | Animal Health |
| United States | Bruker | Agilent Technologies | n/a | Supply/service |
| Ireland | Azur Pharma | Elan Pharmaceuticals (Elan) | n/a | Pain |
| United States | Sigma-Aldrich | Ace Animals | n/a | Supply/service |
| United States/India | Advanced Plant Pharmaceuticals | GNE-India | n/a | Algae technology |
| United States/Germany | Cambrex | IEP | n/a | Industrial biocatalysis |
| United States | Ingenix | QualityMetric | n/a | Healthcare IT |
| United States | MDRNA | Valeant Pharmaceuticals | n/a | BNA patents |
| United States/Japan | Pernix Therapeutics Holdings | Shionogi Pharma | n/a | Generic antibiotics |
| Ireland/Netherlands | Venn Life Sciences | UpToYou | n/a | CRO |
| United States/Germany | Cord Blood America | Stellacure | n/a | Blood banks |
| United States | BioClinica | TranSenda | n/a | Clinical trial management |
| United States/Australia | Luminex | BSD Robotics | n/a | Robotics |

Source: Burrill & Company ■

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March 2010 Partnering

| COUNTRY/COUNTRY | COMPANY/ LICENSEE | COMPANY/LICENSER | DEAL TYPE | POTENTIAL DEAL VALUE (USD M) | PRINCIPAL FOCUS |
|----------------------------------|----------------------------------|---|-------------------------------------|---------------------------------|---------------------------------|
| United Kingdom/ United States | GlaxoSmithKline | Isis Pharmaceuticals | Collaboration and license option | 1,500.0 | Rare and infectious diseases |
| France/United States | Sanofi-Aventis | Merck | Joint Venture | 1,000.0 | Animal health |
| Switzerland/France | Novartis | Transgene | License | 960.0 | Cancer vaccine |
| United Kingdom/ United States | GlaxoSmithKline | Cellzome | License | 695.0 | Epigenetics |
| United States | Bristol-Myers Squibb | Allergan | License | 413.0 | Pain |
| United States/Australia | Eli Lilly | Acrux | License | 335.0 | Genitourinary |
| Germany/Switzerland | Boehringer Ingelheim | 4-Antibody | Collaboration | 244.0 | Antibodies |
| US/France | Bausch & Lomb | NicOx | License | 179.5 | Ophthalmic |
| Germany/United States | Bayer Schering Pharma | Prometheus Laboratories | Collaboration/ license | 160.0 | Companion Diagnostics |
| Japan/United States | Shinogi | QuatRx Pharmaceuticals | License | 125.0 | Genitourinary |
| United States/France | Rhythm Pharmaceuticals | Ipsen | License | 80.0 | Obesity |
| United States | Eli Lilly | NeurOp | Collaboration | 75.5 | Central Nervous System |
| France/United States | Ipsen | GTx | Partnership | 58.0 | Oncology |
| United States | Valeant Pharmaceuticals | Spear Pharmaceuticals | License | 12.0 | Dermatology |
| Switzerland/United Kingdom | Sandoz (Novartis) | Vectura Group | Revised agreement | 9.5 | Respiratory |
| Switzerland/Israel | Roche | Itamar | Agreement | 2.7 | Peripheral Arterial Disease |
| United States/Canada | Pfizer Animal Health | Immunovaccine | License | n/a | Animal vaccines |
| United Kingdom/ Netherlands | GlaxoSmithKline | To-BBB technologies | Collaboration | n/a | Drug delivery |
| United States/United Kingdom | Abbott Laboratories | GlaxoSmithKline | Collaboration | n/a | Companion Dx |
| United States | Life Technologies | Translational Genomics Research Institute and US Oncology | Collaboration | n/a | Cancer genomics |
| United States | Athenahealth | Sermo | Partnership | n/a | Wireless health |
| Singapore | Rhapsody Biologics | A*Star | License | n/a | Infectious |
| United Kingdom | Renovo | Shire | License | n/a | Dermatology |
| Switzerland/United States | Lonza | Odyssey Thera | Collaboration | n/a | Drug discovery |
| United States/Japan | Omeros | Asubio Pharma (Daiichi Sankyo) | License | n/a | Parkinson's disease |
| United Kingdom/India | AstraZeneca | Torrent Pharmaceuticals | Partnership | n/a | Generics |
| United States/Sweden | Human Genome Sciences | BioInvent | Collaboration | n/a | Monoclonal antibodies |
| Canada/United States | Kyto Biopharma | Research Foundaiton of State University of New York | License | n/a | Oncology |
| United States | Cephalon Australia (Cephalon) | Innate Immune | License | n/a | Autoimmune |

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March 2010 Partnering

| COUNTRY/COUNTRY | COMPANY/ LICENSEE | COMPANY/LICENSER | DEAL TYPE | POTENTIAL DEAL VALUE (USD M) | PRINCIPAL FOCUS |
|----------------------------------|-----------------------------|--|------------------------------|---------------------------------|-----------------------------------|
| United States | Leukemia & Lymphoma Society | Forma Therapeutics | Alliance | n/a | Oncology |
| France/Israel | Biogemma | Evogene | License | n/a | Crop traits |
| United States/Canada | Pfizer | Tekmira Pharmaceuticals | Collaboration | n/a | siRNAs |
| United States | ForSight Labs | SurModics | License | n/a | Ophthalmology |
| United States | Quest Diagnostics | Health Discovery Smart Personalized Medicine | License | n/a | Pharmacogenetics |
| Japan/United States | Zenyaku Kogyo | Theraclone Sciences | License | n/a | Infectious |
| United States | Symyx Technologies | Simulations Plus | Partnership | n/a | Predictive modeling |
| Japan/United Kingdom | Ono Pharmaceutical | BioSeek (Asterand) | Collaboration | n/a | Drug discovery |
| United States/Australia | Quigley | Phosphagenics | Joint Venture | n/a | OTC drugs |
| United Kingdom/ Australia | MedImmune (AstraZeneca) | Xenome | License | n/a | Pain therapeutics |
| United States/ United Kingdom | Cephalon | Cancer Research Technology | Collaboration | n/a | Oncology |
| Switzerland/ United States | Novartis Animal Health | Morphogenesis | Collaboration license | n/a | Animal health |
| Netherlands/ United States | Qiagen | Fluidigm | Partnership | n/a | Genomics |
| United States/ Luxembourg | Life Technologies | Integrated Biobank of Luxembourg | Alliance | n/a | Genomics |
| United States/Canada | DNP Green Technology | GreenField Ethanol | Partnership | n/a | Renewable chemicals |
| Switzerland/United Kingdom | Novartis Diagnostics | Smiths Detection | License and collaboration | n/a | Infectious disease diagnostics |
| United States | Luminex | Advanced Liquid Logic | License | n/a | Microfluidics |
| United States/Australia | Emisphere Technologies | Alchemia | Collaboration | n/a | Drug delivery |
| United Kingdom/ United States | AstraZeneca | University of Pennsylvania School of Medicine | Partnership | n/a | Neurology |
| India/United States | Ranbaxy Laboratories | Pfenex | Collaboration | n/a | Biosimilars |
| Colombia/ United States | PROCAPS | Pro-Pharmaceuticals | Marketing rights | n/a | Oncology |
| India/China | Parenteral Biotech | Sinovac Biotech | Marketing rights | n/a | Flu vaccines |
| France/United States | Ipsen | Dicerna Pharmaceuticals | Collaboration | n/a | RNAi |
| France/United States | Sanofi-Aventis | AgaMatrix | Partnership | n/a | Blood Glucose Management |
| China/United States | ForSight Labs | Cord Blood America | License | n/a | Stem cell blood banking |
| United States | Melior Discovery | Rett Syndrome Research Trust | Collaboration | n/a | Autism |
| United States | Merck | Sage Bionetworks | Collaboration | n/a | Cardiovascular, metabolic |
| Switzerland/Italy | Roche | Siena Biotech | License | n/a | Alzheimer's disease |

Source: Burrill & Company

February 2010 Grants and Contracts

| COMPANY | AWARD (USD M) | PRINCIPAL FOCUS | FUNDING AGENCY |
|---------------------------|------------------|-------------------|--|
| GRANTS | | | |
| Avila Therapeutics | 3.20 | Oncology | Leukemia & Lymphoma Society |
| PDS Biotechnology | 1.28 | Cancer vaccine | National Cancer Institute SBIR |
| Intellikine | 1.00 | Oncology | Multiple Myeloma Research Foundation |
| Tragara Pharmaceuticals | 1.00 | Oncology | Multiple Myeloma Research Foundation |
| MannKind | 1.00 | Oncology | Multiple Myeloma Research Foundation |
| Bio-Synthesis | 0.60 | Vaccine adjuvants | NIAID SBIR |
| Kineta | 0.60 | Autoimmune | NIH Phase 1 SBIR |
| Achillion Pharmaceuticals | n/a | Infectious | NIH SBIR |
| TOTAL GRANTS | \$8.68 | | |
| CONTRACTS | | | |
| SAIC | \$26.00 | Healthcare IT | Walter Reed Army Institute of Research |
| Vical | n/a | Infectious | U.S. Navy |
| TOTAL CONTRACTS | \$26.00 | | |

Delisting Notices Rise in March

Anesiva and La Jolla Pharmaceuticals delisted

Ten companies received notices from the Nasdaq Stock Market in March for failure to meet the market's minimum share price or capitalization requirements. Four companies regained compliance and two companies—La Jolla Pharmaceuticals and Anesiva—were delisted and moved to the pink sheets.

That compares to just four companies that received delisting notices and one company, Forbes Meditech, which was delisted in February.

Nasdaq Notices Issued in March 2010

| COMPANY | TICKER |
|--|--------|
| COMPANIES HAVE 180 DAYS TO REGAIN COMPLIANCE | |
| Response Genetics | RGDX |
| Molecular Insight Pharmaceuticals | MIPI |
| InfoLogix | IFLG |
| XOMA | XOMA |
| ARCA Biopharma | ABIO |
| Genetic Technologies (Australia) | GENE |
| DARA BioSciences | DARA |
| Bionovo | BNVI |
| Marshall Edwards (Australia) | MSHL |
| Bruker | BRKR |
| COMPANIES REGAINING COMPLIANCE WITH NASDAQ REQUIREMENTS | |
| Astrom Biosciences | ASTM |
| Insmid | INSM |
| Capstone Therapeutics | CAPS |
| Star Scientific | CIGX |
| COMPANIES DELISTED | |
| La Jolla Pharmaceuticals | LJPC |
| Anesiva | ANSV |

Bankruptcies and Liquidations: Autoimmune Board Decides to Call It Quits

July failure of company's late-stage MS drug leads to decision.

Autoimmune said that its board of directors has decided to liquidate the company after consideration of potential strategic alternatives. The decision follows the failure in July 2009 of the company's experimental multiple sclerosis drug in a late-stage trial.

In connection with the liquidation, the Pasadena, California-based company intends to distribute to its stockholders all available cash, except such cash as is required for paying or making reasonable provision for the liabilities and other obligations

of the company. The company intends to call a special meeting of the stockholders to seek approval of a liquidation plan. If the plan of liquidation is approved, the company also intends to close its stock transfer books and to discontinue recording transfers of its stock.

Neuropharm Group said it is considering a voluntary liquidation in the face of a lack of offers from ongoing talks with potential buyers. The specialty pharma focused on neurodevelopmental disorders has been in

discussions with a number of parties since it entered an offer period in November 2009 and announced that it was pursuing a proposed sale or merger of the company. The Company is continuing talks with a potentially interested party, which is in the advanced stages of due diligence, but no offer has yet been received. The company said it has significantly reduced its cash burn and, as of the end of 2009, had unaudited cash, cash equivalents and money market investments of \$9.4 million.

Hiring: Genentech to Fill 600 openings

Genentech to Fill Openings

Genentech has more than 600 job openings, about 480 of which are in the San Francisco Bay Area. These positions include research and development, manufacturing, corporate and commercial functions, says company spokeswoman Robin Snyder. Her comment was reported in the San Francisco Business Times.

Abaxis Plans Expansion

Abaxis is adding more than 35,000 square feet to the 91,000 square feet it already leases in

Union City, California the company said. The new deal cuts the company's rental costs. Abaxis did not explain the reason for the expansion.

Pioneer Hi-Bred Expands R&D

Pioneer Hi-Bred, one of the world's largest developers and supplier of advanced plant genetics to farmers worldwide, is expanding its research and development in numerous locations. The company is gearing up to expand trial seed production to improve yields of its geneti-

cally modified corn and soybean. Pioneer has announced plans for new research facilities and space for 400 new research positions based in Johnston, Iowa; the Center for Dryland Research in eastern North Carolina; a commercial and parent soybean seed production facility in New Madrid County, Missouri; expansion of drought research in Manhattan, Kansas, and Plainview, Texas; a new research center in Ithaca, Michigan; and expanded research capacity at a facility in Union City, Tennessee.

Layoffs: AstraZeneca Slashes Jobs at U.S. HQ

AstraZeneca Sheds 550 Jobs

London-based AstraZeneca said it would layoff 550 workers at its U.S. headquarters in Wilmington, Delaware as part of a larger restructuring plan meant to eliminate 15,000 positions by 2013. The company is paring a basic research group

tasked with finding compounds promising for psychiatric medications.

Xenoport Cuts Staff by Half

XenoPort, a Santa Clara, Calif.-based biopharmaceutical that is using the body's natural nutrient transport

mechanisms to improve the therapeutic benefits of existing drugs, said that it is halving its workforce as it focuses its remaining resources on advancement of its late-stage product candidates. The decision was

(continued) »

Layoffs

» (continued)

promoted by an unexpected complete response letter from the FDA, regarding review of the company's Horizant extended-release tablets for treatment for moderate-to-severe primary restless legs syndrome. Xenoport expects the staff cuts to help it save \$15.6 million annually after it spends about \$4.2 million to finance the restructuring.

Exelixis Lays Off 270

South San Francisco, Calif.-based Exelixis said on March 8 that it will layoff 270 employees, or about 40 percent of its staff, in an effort to conserve about \$90 million per year. The savings will help the company continue to advance its late-stage and mid-stage programs, including programs pursued in partnership with Bristol-Meyers Squibb and Sanofi. The restructuring will cost the company approximately \$15 million in the first quarter of 2010. The company lost \$135.2 million last year.

KV Pharmaceutical cuts 289 Jobs

On March 31, KV Pharmaceutical said it had reduced its work force by 289 employees, or approximately 42 percent in order to lower its operating costs. The reduction at the troubled St. Louis, Missouri company is intended to help it survive while it works with the FDA to return its products to market, following a March conviction on two felony counts of failing to inform the FDA of manufacturing problems that led to oversized pills on the market.

Executive Changes: Levinson Joins Roche Board

▼ Roche followed through with its plans to elect former Genentech CEO Art Levinson to its board of directors. Levinson is still Genentech's board chair, serves as an advisor to Genentech's Research and Early Development center and on the Scientific Resource Board, Genentech's external advisory group.

▼ Human Genome Sciences CFO Tim Barabe left that company at the end of March to become an executive vice president and CFO of Affymetrix. Barabe will receive \$364,000 from Human Genome Sciences, an amount equal to his base salary, plus a \$75,000 bonus.

▼ Robert Gould, former head of the Broad Institute, has become CEO of Epizyme, a Cambridge, Massachusetts-based company. Epizyme is developing drugs based on the rapidly-emerging field of epigenetics, which studies the chemical reactions in charge of how genomic information informs the expression of DNA. Gould has served on Epizyme's board for two years and will replace founding CEO Kazumi Shiosaki.

▼ Rib-X Pharmaceuticals of New Haven, Connecticut named Mark Leuchtenberger to be its new CEO, replacing the company's founder

Susan Froshauer, now Rib-X's CSO. Leuchtenberger is in charge of helping Rib-X bring two antibiotics to market after learning the hard way (as CEO of Targanta Therapeutics) that doing so is no easy job.

▼ Roche NimbleGen, a sequencing equipment maker, named Frank Pitzer its new CEO. Before taking the helm, the eight-year veteran of Roche served as head of divisional quality and regulatory affairs reporting directly to the CEO of Roche Diagnostics. NimbleGen is headquartered in Madison, Wisconsin.

▼ Seattle, Washington-based Integrated Diagnostics appointed its first CEO, Albert Luderer. Luderer was previously president and CEO of BioTrove, a venture-backed molecular biological tools company that was acquired by Life Technologies in December 2009.

▼ Portola Pharmaceuticals CEO Charles Homcy will retire. He'll continue to serve on Portola's board as Portola COO William Lis is promoted to be CEO of the South San Francisco, California company.

▼ Novasys Medical named Scott Cramer as its new CEO and president. The Newark, California company said it's entering a stage

of "expected significant growth." Prior to joining Novasys, Scott was President and CEO of Bacchus Vascular.

▼ BayBio, the San Francisco Bay Area life sciences trade group, named Jeremy Leffler as its COO. Leffler previously served as a senior public policy analyst for Eli Lilly in Washington D.C. The group also appointed five new directors.

▼ Bio-Rad appointed former Nuvelo CEO Ted Love to its board of directors and its board audit committee, the company said. The moves allowed it to regain compliance with New York Stock Exchange regulations, which require a company to have three independent directors on its audit committee. Love is vice president of research and development at Onyx.

▼ OncoGenex Pharmaceuticals, based in Bothell, Washington, appointed Jack Goldstein as its new chairman and H. Stewart Parker to be a member of its board of directors as two other directors depart in June. Goldstein was president and COO of Chiron when it was acquired by Novartis in 2006. Parker founded Targeted Genetics, where she served as CEO until leaving the company in November 2008.

Legal: Aussie Court Orders Merck Subsidiary to Pay Damages in Vioxx Case

Australian Judge Awards \$260,000 to Plaintiff

A federal judge in Australia awarded nearly \$260,000 to a man who claimed Merck's arthritis drug Vioxx cause him to have a heart attack, Reuters reported.

The ruling in the case against Merck's Australian unit opens the doors to similar claims from hundreds of others in Australia who had heart attacks after using the controversial drug, lawyers for the man said. Despite the damage award, the court dismissed claims against the parent company finding Merck wasn't negligent in its development, study and sale of Vioxx. Merck and its Australian subsidiary in a statement said they disagree with the limited portions of the Court's findings that were against the subsidiary and intend to appeal them.

Novelos Faces Suit from Shareholders

Novelos Therapeutics said that a class action complaint was filed on March 5, 2010 in the United States District Court for the District of Massachusetts by Drew Weaver, allegedly a purchaser of shares of Novelos' common stock on February 1, 2010, on behalf of himself and all others similarly situated against the company and Harry S. Palmin, Novelos' President and Chief Executive Officer.

The suit follows the late-stage clinical trial failure of Novelos' experimental drug NOV-002 for non small cell lung cancer. The suit alleges that Palmin stated that "patients are living longer than expected" in the trial and that this was materially false and misleading because it indicates that the patients who received NOV-002 were surviving longer than the company had initially anticipated. The suit says Palmin knew, or recklessly disregarded,

that the length of the unanticipated survival times could relate to the patients in the control arm of the study who did not receive NOV-002. Novelos said the suit is without merit and it will defend itself vigorously.

Sorin Reaches Tentative Settlement with DOJ

Sorin Group said that it has reached a tentative settlement of the previously disclosed 2006 United States Department of Justice investigation into sales and marketing practices of its subsidiary Ela Medical and of former independent sales representatives. The Company be-

Seroquel caused his alleged injuries. The case was the first Seroquel product liability case to go to trial. The previous nine cases prepared for trial have been dismissed by both federal and state court judges, and approximately 2,600 additional cases have been abandoned by the plaintiffs' attorneys themselves.

These cases claim that Seroquel causes diabetes in individual plaintiffs. The company says jurors, judges and even plaintiffs' lawyers themselves have found that plaintiffs simply cannot show through any accepted scientific method that

A federal jury said Pfizer should pay \$142.1 million for illegally promoting its drug Neurontin for unapproved uses.

lieves it will successfully conclude negotiations required for a \$10 million settlement, which would be paid most likely in third quarter of 2010.

The company said that no charges will be brought against the company, its employees or management. The company admits no wrongdoing as part of the settlement, which is subject to completion of negotiations and approval of a definitive agreement and corporate integrity agreement with the Department of Justice and Office of Inspector General of the Department of Health and Human Services.

AstraZeneca Prevails in Seroquel Case

AstraZeneca said that a jury in a New Jersey state court ruled in favor of the company rejecting a Louisiana plaintiff's claims that AstraZeneca's drug

AstraZeneca is responsible for their alleged injuries. Seroquel is used to treat schizophrenia, schizoaffective disorder, and bipolar mania.

Jury Finds Pfizer Violated Racketeering Law

A federal jury in Boston found that Pfizer violated U.S. racketeering law in marketing the epilepsy drug Neurontin and said the drug giant should pay \$142.1 million, Bloomberg reported. Kaiser Foundation Health Plan and Kaiser Foundation Hospitals claimed in a brief during the trial that Pfizer illegally promoted Neurontin for unapproved uses. The insurer said it was misled into believing migraines and bipolar disorder were among the conditions that could be treated effectively with Neurontin. An attorney for Kaiser told Bloomberg the decision bodes well for future cases.

Patents: Pfizer Drops Viagra Case Against Lilly

Drug Giant Sues Teva Over Generic Version of ED Drug

Pfizer has agreed to drop an eight-year-old patent infringement lawsuit against Eli Lilly over its erectile dysfunction drug Viagra after the U.S. Patent and Trademark Office rejected part of the patent covering it, Reuters reported.

The court case had been on hold pending a review of Pfizer's Viagra patent. Lilly makes Cialis, a longer-acting competitor.

The USPTO partially rejected the patent because the drug has a similar mechanism of action to that of the Chinese herb Yin Yang Huo, which is marketed on the Internet as Horny Goat Weed.

Separately, Pfizer filed suit against Teva Pharmaceutical Industries, which has filed with

Vyvanse qualified as a new chemical entity and was entitled to five years of market exclusivity, but in 2009 Actavis Elizabeth filed an application with the agency to market a generic version of the drug and sued the FDA.

The Court determined that FDA's actions complied with federal administrative law standards as a reasonable exercise of the agency's scientific expertise. The five-year exclusivity period for Vyvanse expires on February 23, 2012.

Watson Pharmaceuticals and Takeda Pharmaceutical Resolve Patent Litigation

Watson Pharmaceuticals said that it has reached a settlement agreement with Takeda Pharmaceutical and Takeda Pharmaceuticals North America resolving outstanding patent litigation related to Watson's generic equivalent version of Actos (Pioglitazone Hydrochloride) 15mg, 30mg and 45mg tablets.

Under terms of the agreement, Takeda granted Watson a non-exclusive royalty free license to its U.S. patents covering Actos. Under the terms of the agreement, Watson is permitted to launch its generic equivalent version of Actos on August 17, 2012, or earlier under certain circumstances.

Actos had approximately \$3.4 billion in brand sales for the twelve months ending December 31, 2009, according to IMS Health. Actos is a once-daily oral prescription medication that, with diet and exercise, has been shown to be effective for the treatment of type 2 diabetes.

Shire Pharmaceuticals Gets Filing Notice on ADHD Drug

Shire said that it has received a notice from Teva Pharmaceuticals USA that it has filed an application with the U.S. Food and Drug Administration to begin marketing a generic version of Shire's Intuniv, a treatment for

attention deficit and hyperactivity disorder.

The application is for 1mg, 2mg, 3mg, and 4mg guanfacine hydrochloride extended release tablets. Shire said Intuniv is protected by three FDA Orange Book listed patents, which expire separately in 2015, 2020 and 2022. It said it is reviewing the details of the notice from Teva. It said the Hatch-Waxman exclusivity period for Intuniv runs until September 2, 2012 and applications for generic versions of the drug cannot be approved prior to the end of that exclusivity period.

Enzo Biochem Set for Damage Claims Against Life Technologies

Enzo Biochem said today that a decision by the Court of Appeals for the Federal Circuit reversing a district court's summary judgment will enable the company to pursue a claim for substantial damages against Applera Corporation, now Life Technologies.

The Court of Appeals vacated the lower court's judgments of invalidity on United States Patent Nos. 5,328,824 and 5,449,767. Enzo said the ruling clears the way for it to pursue claims related to the broad scope of the products subject to its patents, and substantially weakens the defense of Applera with respect to their potential liability. The asserted patents cover pioneering technologies relating to compounds used in DNA sequencing systems to read the genetic code.

The complaint against Applera and its subsidiary Tropic charged patent infringement arising out of the misappropriation of Enzo's proprietary and pioneering patented technologies related to DNA sequencing systems, and other products, as well as providing others with unauthorized and prohibited access to the patented products and technologies.

The USPTO partially rejected the patent for Viagra because it has a similar mechanism to that of the Chinese herb Yin Yang Huo, which is marketed on the Internet as Horny Goat Weed.

the U.S. Food and Drug Administration to market a generic version of Viagra.

District Court Upholds Market Exclusivity to Shire's Vyvanse

Shire said that the United States District Court for the District of Columbia has upheld the decision of the U.S. Food and Drug Administration to grant five year new chemical entity exclusivity to lisdexamfetamine dimesylate—currently marketed by Shire U.S. for the treatment of attention-deficit hyperactivity disorder under the name Vyvanse.

In 2007, the FDA determined

Newly Issued Patents and Allowances March 2010

| COMPANY | TICKER | COMPANY DESCRIPTION | GRANTING AGENCY | PATENT NUMBER | PATENT COVERS |
|-------------------------------------|--------------------------------|---|---|-------------------------------------|---|
| BioSante Pharmaceuticals | BPAX | Specialty pharmaceutical company focused on developing products for female sexual health, menopause, contraception and male hypogonadism. | United States Patent and Trademark Office | 7,632,059, 7,662,623 | The first 059 covers methods for manufacturing recombinant antibodies. using the company's 2A/Furin technology. The 623 patent covers antibody expressing constructs containing the 2A/furin technology The two new patents expire in 2023. |
| ALDA Pharmaceuticals | TSX VENTURE: APH; OTCBB: APCSF | Company focuses on the development of infection-control therapeutics derived from its patented technology. | Australian Patent Office | 2007237333 | The divisional patent includes claims to additional aspects of the company's T36 formulation, including the use of T36 as a component of a personal lubricant, in a method of preventing or reducing the transmission of sexually transmitted diseases including Herpes, Chlamydia and HIV and as a sanitizer or cleanser in the form of creams, ointments and wipes. The divisional patent also includes claims to methods of producing T36. |
| Advanced Pro- teome Therapeutics | TSX VENTURE:APC | The company applies its proprietary drug delivery and drug redevelopment technologies to produce new, improved versions of therapeutic proteins and pioneer the emerging field of protein-site targeting. | European Patent Office | Notice of intention to grant patent | The subject of the patent is a method for site-specifically modifying proteins. Site-specific modifications are usually necessary to prepare proteins for commercial use. The new patent describes a method for discovering novel protein sites for attaching entities which are likely to enhance the properties of proteins. |
| ImmunoCellular Therapeutics | IMUC | Develops therapeutics to fight cancer by harnessing the immune system. | United States Patent and Trademark Office | Notice of Allowance | The Notice of Allowance covers the monoclonal antibody ICT-69, which targets multiple myeloma and ovarian cancers. The antibody has demonstrated high specificity to these cancers by targeting a novel cell surface antigen. |
| Merrion Pharmaceuticals | IEX:MERR | Develops oral forms of drugs that have poor absorption and are generally given by injection. | United States Patent and Trademark Office | 7,658,938 | This patent covers the Company's GIPET enhancer system used with the bisphosphonate class of drugs. The enhancers covered by the patent have the ability to enhance oral absorption many fold compared to standard formulations. |
| Generex Biotechnology | GNBT | Develops and commercializes drug delivery systems and technologies. | China Patent Office | Notice of Allowance | The patent in respect of its li-Key peptide vaccine technology in China |
| Biosearch Technologies | Private | Designs, Develops, and manufactures sophisticated oligonucleotide-based tools. | United States Patent and Trademark Office | 7635598 and 7635762 | The first patent covers a process for taking a non-traditional fluorophore composed of a metal ion chelate and efficiently attaching it to a biomolecule. The second patent describes a novel reporter system based on the use of an azoreductase enzyme to permanently destroy the quenching ability of Biosearch's BHQ dyes, thereby activating any linked fluorophore. |
| Mesoblast | ASX:MSB; PINK:MBLTY | Develops novel treatments of a unique adult stem cell technology aimed at the regeneration and repair of bone and cartilage | United States Patent and Trademark Office | 7,670,628 | The patent ensures that only Mesoblast can commercialise bone tissue generating products in the United States using the unique adult stem cells termed Mesenchymal Precursor Cells. |
| Stellar Pharmaceuticals | OTCBB: SLXCF | Develops and markets polysaccharide-based therapeutic products used in the treatment of osteoarthritis and certain types of cystitis. | Chinese Patent Office | Notice of Allowance | The patent covers pharmaceutical compositions that comprise the greater and superior dosage sizes of chondroitin sulfate, and the use of those compositions for the treatment of interstitial cystitis/painful bladder syndrome. |

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Newly Issued Patents and Allowances March 2010

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| IntelGenx | TSX VENTURE: IGX; OTCBB: IGXT | Drug delivery company focused on the development of oral controlled-release products as well as novel rapidly disintegrating delivery systems. | United States Patent and Trademark Office | 7,674,479 | The patent discloses the formulation of pharmaceutical tablets containing sustained-release granules of Bupropion HCl distributed in a sustained-release matrix. |
| Lorus Therapeutics | TSX: LOR | Biopharmaceutical company specializing in the discovery, research and development of pharmaceutical products and technologies for the management of cancer | Australian Patent Office | Notice of Allowance | The patent provides broad protection for composition of a number of Lorus' small molecule drug candidates including LOR-220 and related compounds as well as Lorus' lead oncology small molecule LOR-253. |
| Seattle Genetics | SGEN | Clinical stage biotechnology company focused on the development and commercialization of monoclonal antibody-based therapies for the treatment of cancer and autoimmune disease. | United States Patent and Trademark Office | 7,659,241 | The patent relates to its antibody-drug conjugate technology. It covers cleavable linkers and potent auristatin drug payloads used in certain of Seattle Genetics' antibody-drug conjugate programs, |
| Benitec | ASX:BLT; PINK:BNIKF | Company is focused on licensing its extensive intellectual property portfolio and developing therapeutics to treat serious diseases using its proprietary ddRNAi technology | Japanese Patent Office | 4460600 | The granted claims of the patent broadly include a genetic construct for expressing a ribonucleic acid (RNA) to silence a target gene in a eukaryotic cell. |
| Marinomed Biotechnologie | Private | Company is focused on the development of innovative therapies for respiratory diseases. | European Patent Office | 2101792 | This patent covers a core component of Marinomed's proprietary respiratory technology platform |
| MorphoSys | FSE: MOR | Company develops novel antibodies for therapeutic, diagnostic and research applications. | Japanese Patent Office | 4436457 | The patent provides extended protection for the Company's core technology HuCAL. It covers the production and design of an antibody library based on phage display. |
| Epeius Biotechnologies | Private | The company developed a targeted delivery system that can transport genes or other therapeutic agents directly to diseased areas in the body. | United States Patent and Trademark Office | Notice of Allowance | Patent covers its tumor-targeted vaccine technology for cancer immunotherapy. |
| Regulus Therapeutics | Private | The company focuses on the discovery and development of innovative new medicines based on microRNAs. MicroRNAs are small RNA molecules, typically 20 to 25 nucleotides in length, that do not encode proteins but instead regulate gene expression. | United States Patent and Trademark Office | Notice of Allowance | The patent covers methods of antagonizing miR-181a to regulate immune response. This patent is owned by Stanford University and licensed exclusively to Regulus. |
| ImmunoCellular Therapeutics | OTCBB: IMUC | Develops therapeutics to fight cancer by harnessing the immune system. | United States Patent and Trademark Office | Notice of Allowance | The patent will cover technology relating to monoclonal antibodies that bind to certain epitopes present on pancreatic cancers. |

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Newly Issued Patents and Allowances March 2010

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|-----------------------------|----------------|---|---|---------------------|--|
| StemCells | STEM | The company researches, develops, and commercializes stem cell therapeutics and enables technologies for use in stem cell-based research and drug discovery. | United Kingdom Intellectual Property Office | 2451523 | Patent covers true (germline competent) rat stem cells and genetically engineered rats derived from these cells. The patented technology is expected to have significant utility to academic and pharmaceutical industry researchers by enabling them to create novel rat models for the study of human diseases. |
| Advaxis | OTCBB: ADXS | Advaxis is developing attenuated live Listeria vaccines that deliver engineered tumor antigens, which stimulate multiple simultaneous immunological mechanisms to fight cancer. | United States Patent and Trademark Office | 7662396 | The patent covers the use of this antigen-adjuvant family of proteins alone or when delivered via a live, attenuated Listeria vaccine. |
| Suven Life Sciences | NSE:SUVEN | Suven is focused on discovering, developing, and commercializing novel pharmaceutical products, which are first in class or best in class therapies through the use of GPCR targets. | United States Patent and Trademark Office | 7,649,097 | The granted claims of the patent include the class of selective 5-HT compounds discovered by Suven and are being developed as therapeutic agents and are useful in the treatment of cognitive impairment associated with neurodegenerative disorders like Alzheimer's disease, Attention deficit hyperactivity disorder (ADHD), Huntington's disease, Parkinson and Schizophrenia. |
| Ikonisys | Private | Next generation diagnostic company specializing in non-invasive, cell-based diagnostics. | United States Patent and Trademark Office | 7,660,454 | The '454 patent describes a process for identifying fluorescence in-situ hybridization (FISH) signals with an epi-fluorescence microscope using a multi-focal plane technology. This patent describes a method for the acquisition of images on multiple focal planes, followed by combination and analysis of those images to detect desired signals. |
| Celladon | Private | Celladon develops molecular therapies for the treatment of heart failure. | United States Patent and Trademark Office | Noitce of Allowance | The notice of allowance is for a broad patent covering the company's lead drug candidate MYDICAR, a genetically targeted enzyme replacement therapy for advanced heart failure. The patent will be issued to The Regents of the University of California and licensed exclusively to Celladon. |
| Pluristem | PSTI; DAX: PJT | A clinical stage biotechnology company with proprietary technology for the development and manufacturing of standardized cell therapies derived from the human placenta | European Patent Office | N/A | The patent covers Pluristem's core 3D cell expansion technology. |
| Skinvisible Pharmaceuticals | OTCBB:SKVI | Skinvisible is an R&D company that licenses its proprietary formulations with Invisicare to pharmaceutical and cosmeceutical companies as well as assisting companies in enhancing their existing skin care products. | South Korean Patent Office | N/A | The patent covers Invisicare, the company's polymer delivery system for topical dermatology products. |
| Pisgah Labs | Private | Pisgah is a drug product development company and an active pharmaceutical ingredient manufacturer | United States Patent and Trademark Office | Notice of Allowance | The patent relates to a therapeutically significant family of pharmaceutical polymorphic compositions of imipramine pamoate has been allowed. The patent application also includes methods of manufacturing, purifying and use in pharmaceutical preparations. |

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Newly Issued Patents and Allowances March 2010

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|--------------------------|------------|--|---|-------------------------|--|
| ARCA biopharma | ABIO | ARCA is developing genetically targeted therapies for heart failure and other cardiovascular diseases, | United States Patent and Trademark Office | 7,678,824 | The patent covers methods of treating heart failure patients with bucindolol based on genetic testing. |
| Suven Life Sciences | NSE:SUVEN | Suven is focused on discovering, developing, and commercializing novel pharmaceutical products, which are first in class or best in class therapies through the use of GPCR targets. | European Patent Office | 1919896 | The granted claims of the patent include the class of selective 5-HT compounds discovered by Suven and are being developed as therapeutic agents and are useful in the treatment of cognitive impairment associated with neurodegenerative disorders like Alzheimer's disease, Attention deficient hyperactivity disorder (ADHD), Huntington's disease, Parkinson and Schizophrenia. |
| MDRNA | MRNA | MDRNA is an RNAi-based drug discovery and development company | United States Patent and Trademark Office | Notice of Allowance | The patent covers methods for the delivery of siRNAs as well as a broad array of compounds with pharmacological activity. The patent identifies and protects peptides that were discovered using MDRNA's proprietary Trp Cage Phage Display Library and describes targeting peptides that demonstrate high binding affinity to, and internalization by, hepatocellular carcinoma cells. |
| Hana Biosciences | OTCBB:HNAB | Hana Biosciences is focused on developing and commercializing therapies designed to improve and enable current standards of cancer care. | United States Patent and Trademark Office | Notice of Allowance | Patent covers the use of menadione to prevent and treat skin rash in patients taking biologic and small molecule epidermal growth factor receptor (EGFR) inhibitors, such as Erbitux and Tarceva, for anti-cancer therapy. |
| Metabolon | Private | MDRNA is an RNAi-based drug discovery and development company | United States Patent and Trademark Office | 7,682,783 and 7,682,784 | The issued claims in the new patents are for uses of metabolomics to identify diagnostic biomarkers for depression and schizophrenia by profiling classes of metabolites in a sample. |
| BioNanomatrix | Private | BioNanomatrix is developing nanotechnology-enabled genome analysis systems for applications in life science research, molecular diagnostics and personalized medicine. | United States Patent and Trademark Office | 7,670,770 | The patents cover nanochannel arrays that enable high-throughput macromolecular analysis. Also disclosed are methods of preparing nanochannel array chips, methods of analyzing macromolecules such as entire strands of genomic DNA, and systems for implementing these methods. The patent was awarded to Princeton University, which provided BioNanomatrix with an exclusive, worldwide license to the technology. |
| Collegium Pharmaceutical | Private | Collegium is a specialty pharmaceutical company focused on the development of proprietary, late stage pharmaceutical products. | United States Patent and Trademark Office | Notice of Allowance | The patent will provide broad coverage for Collegium's novel once-a-day formulation of the active pharmaceutical ingredient, milnacipran HCl. Milnacipran HCl, a selective serotonin and norepinephrine dual reuptake inhibitor, was recently approved by the U.S. Food and Drug Administration for the management of fibromyalgia. |
| Alnylam Pharmaceuticals | ALNY | Alnylam is a biopharmaceutical company developing novel therapeutics based on RNA interference, or RNAi | Japanese Patent Office | N/A | The newly granted patent includes 38 claims broadly covering compositions, methods, uses, and systems for double-stranded RNAs having key structural elements that are widely recognized as important for the therapeutic activity of siRNAs. The patent is part of the Tuschl II patent, which is exclusively licensed to Alnylam for RNAi therapeutics on a worldwide basis through an agreement with Max Planck Innovation, the licensing agent for the Max Planck Society. |

Research: NIH to Create Genetic Testing Registry

Public Database to Provide Information on Genetic Tests

The National Institutes of Health said it is creating a public database that researchers, consumers, healthcare providers, and others can use to search for information submitted voluntarily by genetic test providers. The Genetic Testing Registry aims to enhance access to information about the availability, validity, and usefulness of genetic tests.

Currently, more than 1,600 genetic tests are available to patients and consumers, but there is no single public resource that provides detailed information about them. The Genetic Testing Registry is intended to fill that gap.

The registry project will be overseen by the NIH Office of the Director. The National Center for Biotechnology Information, part of the National Library of Medicine at NIH, will be responsible for developing the registry, which is expected to be available in 2011.

Stopping Clinical Trials Early May Give Misleading Impression

Halting clinical trials early because of positive results may lead to exaggerations of how effective those treatments actually are, according to an international study of nearly 100 such trials. The authors of the study—published in the *Journal of the American Medical Association*—recommend that researchers resist pressures to end clinical trials early and continue them for longer periods before even considering premature termination.

“Our research shows that in most cases early stopping of clinical trials resulted in misleading estimates of treatment effects,” says Victor Montori, Mayo Clinic endocrinologist and corresponding author of the study. “These

misleading estimates are likely to result in misguided decisions about the trade-off between risks and benefits of a therapy.”

On average, treatments with no effect would show a reduction in relative risk of almost 30 percent in trials stopped early, Montori says. Treatments with a true relative risk reduction of 20 percent would show a reduction of more than 40 percent, he says.

The clinical trials that the researchers studied were ended early because of a convincing—and usually large—apparent difference between an experimental treatment and an existing standard therapy. The studies were ended so participants taking a placebo or less effective medications could also take the studied drug.

Montori says almost everyone involved benefits from a trial ending early because it usually allows the therapy to reach the market earlier, but patients may suffer because they could end up receiving a therapy on the basis of misleading information about its benefits.

The researchers examined 63 medical questions regarding 91 truncated trials and compared them to 424 comparable trials that were not stopped early. Results showed that the studies that were stopped—especially smaller trials of a few hundred participants—had exaggerated or misleading treatment effects. Those misleading findings are often compounded downstream because researchers are less likely to return to the topic after what is perceived as a significant successful finding.

The authors recommend that researchers use restraint and truncate clinical trials only near the end of a study and then only with “a very good reason.” Otherwise, says Montori, patients and

physicians will be making treatment choices based on inaccurate information, or worse, opting for one treatment when another may be more appropriate.

New Trial Could Lead to Personalized Cancer Treatments

A unique public-private partnership made up of research institutes, regulatory bodies, and drug companies, has launched a new clinical trial model to help screen promising new drugs being developed for women with high-risk, fast-growing breast cancers—women for whom an improvement over standard treatment could dramatically change the odds of survival.

Led by the Foundation for the National Institutes of Health, the U.S. Food and Drug Administration, and the Biomarkers Consortium, the I-SPY 2 trial will employ a groundbreaking clinical trial model that uses genetic or biological markers from individual patients’ tumors to screen new treatments to identify which ones are most effective in specific types of patients. An adaptive trial design will also enable researchers to use early data from one set of patients to guide decisions about which treatments might be more useful for patients later in the trial, and eliminate ineffective treatments more quickly.

“I-SPY 2 promises to leverage convergence of progress on a number of research fronts to speed the evaluation of promising new breast cancer drugs using molecular cancer biomarkers to identify those agents that are effective in specific subpopulations of breast cancer patients,” says Anna Barker, deputy director of the National Cancer Institute, and co-chair of The Biomarkers Consortium Cancer Steering

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Media Too Upbeat on Cancer Drugs

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Committee. "This will allow us to finally design advanced, smaller and less expensive phase 3 trials that test the right drugs in the right patients."

The large-scale trial will involve nearly 20 major cancer research centers across the country. Study results will be made broadly available to the entire cancer research and development community. I-SPY 2 is expected to cost approximately \$26 million over five years. Funding will come from a variety of sources, and Safeway, one of the largest food and drug retailers in North America, has contributed significant seed funding.

The hope is that the I-SPY 2

age of cancer is more likely to focus on aggressive treatment and survival rather than death, treatment failure, or adverse events. Almost none of the coverage addresses end-of-life palliative or hospice care, the study finds.

An estimated one in two men and one in three women will develop cancer during their lifetimes and more than 500,000 Americans are expected to die of cancer or related complications this year.

Jessica Fishman and her colleagues at the University of Pennsylvania analyzed cancer news reporting between 2005 and 2007 in eight large U.S. newspapers and five national magazines. Of 2,228 cancer-related articles that appeared, a random sample of 436 was selected (312 from newspapers and 124 from magazines).

The articles were most likely to focus on breast cancer (35.1 percent) or prostate cancer (14.9 percent), and 87 (20 percent) discussed cancer in general. A total of 140 (32.1 percent) focused on individuals surviving or being cured of cancer, whereas 33 (7.6 percent) focused on one or more patients who were dying or had died of cancer. Ten articles (2.3 percent) focused on both survival and death.

In addition, few articles (57, or 13.1 percent) reported that aggressive cancer treatments can fail to extend life or cure the disease, or that some cancers are incurable. Less than one-third of the articles (131, or 30 percent) mentioned adverse events associated with cancer treatments, such as nausea, pain or hair loss.

The authors say there is no right quantifiable answer as to how much attention newspapers and magazines should give to issues of end-of-life care and death and dying, but they say the same educational goals that ideally drive news coverage of cancer treatment and survival should also compel news organizations to address these topics.

"The media routinely report

about aggressive treatment and survival presumably because cancer news coverage is relevant to a large portion of the population," the authors write, "and, for the same reason, similar attention should be devoted to the alternatives."

Study of Coffee Drinkers Finds Possible Heart Advantage

Coffee drinkers may be less likely to be hospitalized for heart rhythm disturbances, according to a new study by the Kaiser Permanente Division of Research.

The researchers, who note the findings may be surprising because patients frequently report palpitations after drinking coffee, presented the study at the American Heart Association's 50th Annual Conference on Cardiovascular Disease Epidemiology and Prevention in San Francisco on March 5.

The researchers say while it has been established that very large doses of caffeine can produce rhythm disturbances, there has been limited research about the caffeine doses people take. Previous data from a population study in Denmark compared heavy to light coffee drinkers with respect to risk of atrial fibrillation, the most common major rhythm disturbance, and found no statistically significant difference. This research presentation is believed to be the first large, multiethnic population study to look at all major types of heart rhythm disturbance.

The researchers say the data might be reassuring to people who drink moderate amounts of coffee that their habit is not likely to cause a major rhythm disturbance.

While this report is not sufficient evidence to say that people should drink coffee to prevent heart rhythm problems, it supports the idea that people who are at risk for rhythm problems, or who have rhythm problems, do not necessarily need to abstain from coffee.

Coffee drinkers may be less likely to be hospitalized for heart rhythm disturbances, according to a new study by the Kaiser Permanente Division of Research

model will significantly reduce the cost of drug development by allowing the activity of drugs to be assessed much earlier in the research process, potentially enabling drugs to be developed and approved using fewer patients, less time and far fewer resources.

News May Depict Overly Optimistic View of Cancer

It's not often that critics accuse newspapers of being too upbeat, but that's the case with a new study that finds press coverage is too upbeat when it comes to cancer. A report in the journal the *Archives of Internal Medicine* finds newspaper and magazine cover-

Clinic: Medivation's AD Drug Fails

Medivation's Dimebon Misses Endpoints in Late-Stage Trial

Late-stage trial results for Medivation's Alzheimer's drug, Dimebon, dealt a huge blow to the company. Results from the first of four phase 3 efficacy trials, which involved 595 patients with mild-to-moderate Alzheimer's, showed that Dimebon failed to meet both its co-primary endpoints and its three secondary efficacy endpoints, against placebo.

These results were all the more surprising for the company as they failed to show any of the efficacy trends seen with Dimebon in a pivotal 183-patient Russian study. This was written up in *The Lancet* back in 2008 and had helped raise company and investor expectations so high.

Medivation plans to look into why the trial outcome differed so significantly from the Russian study, with attention likely to focus on the fact that patients in the latter study were younger and treatment naïve.

Dimebon, which is the subject of a major global collaboration with Pfizer, did show that it was safe and well-tolerated when given alone or in combination with other Alzheimer's therapies, such as the cholinesterase inhibitors and memantine.

Actelion's Tracleer Fails in Late-Stage Trial

The failure in late-stage trials of Actelion's Tracleer in idiopathic pulmonary fibrosis, or IPF, is a significant setback for the company and the indication. The drug, an orally available dual endothelin receptor antagonist, failed to show a statistically significant improvement over placebo in delaying disease progression or death in IPF.

Tracleer is the Swiss company's blockbuster drug, with sales expected to reach around \$1.6 billion this year in its main indication, pulmonary arterial

hypertension. The company and investors hoped a positive outcome in the pivotal trial would enable Actelion to build on its success. But it was not to be. IPF patients, meanwhile, will continue to be treated largely with steroids, often in combination with immunosuppressant drugs.

Actelion will look again at IPF with its pipeline drug, macitentan, currently in mid-stage studies. The 150-patient study is currently enrolling patients with IPF and data is expected in the second half of 2011.

Roche and Biogen Idec Suspend Trials of Hopeful Rituxan Successor

Roche and its partner Biogen Idec announced the suspension of late-stage trials of the Rituxan follow-up, ocrelizumab, because of "serious and opportunistic infections, some of which were fatal" in four rheumatoid arthritis trials and two lupus trials. The decision followed the recommendation by the Safety Monitoring Board that the safety risk outweighed the clinical benefit of ocrelizumab. One trial in rheumatoid arthritis and one trial in lupus had already been halted.

As to where ocrelizumab goes from here, it may still find a role in multiple sclerosis or non-Hodgkins lymphoma, where work is still ongoing in mid-stage trials.

Genmab's Zalutumumab Disappoint in Late-Stage Trial

Genmab's potential head and neck cancer treatment, zalutumumab, generated disappointing top-line results in late-stage trials.

The study was carried out in patients with recurrent or metastatic squamous cell carcinoma of the head and neck who had failed on standard platinum-based chemotherapy. Some 286 candidates were given

either zalutumumab plus best supportive care or best supportive care alone. These patients are seriously ill and the study was designed to show a 50 percent improvement in survival over best supportive care alone, a group of patients only expected to live three to four months.

Patients who received zalutumumab did live slightly longer than anticipated, with a median overall survival of 6.7 months. But so did the control group, where the median overall survival was 5.2 months. Although this outcome represented a 30 percent improvement in survival in the zalutumumab arm, it was not significantly different, missing the primary endpoint of the trial. Genmab did note, however, that patients in the zalutumumab group did experience a 61 percent improvement in progression-free survival.

The news is a setback for any zalutumumab partnering deal, which investors were hotly anticipating. The recent data means any terms agreed will now be significantly less favorable for Genmab.

Roche's Avastin Fails in Late-Stage Prostate Cancer Trial

Roche's Avastin suffered another setback when it failed in a late-stage prostate cancer trial. In the study, Avastin did not meet the primary endpoint of extending overall survival.

Avastin is one of the world's top-selling drugs in its primary indication, colorectal cancer. Analysts expected the addition of the prostate cancer indication would add 8 percent to the drug's sales, pushing it to exceed \$9 billion by 2014.

Avastin is currently having an unpredictable time in the clinic. In February, Avastin failed in stomach cancer but succeeded in ovarian cancer.

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Clinic: Pfizer Halts NSCLC Trial

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Sanofi-Aventis Jevtana Shows Positive Prostate Cancer Results

Phase 3 trials with Sanofi-Aventis' Jevtana showed a 30 percent increase in survival in men with prostate cancer whose tumors no longer respond to standard treatment. These results were at the upper end of expectations and provide a real boost the prospects for Jevtana. They may also help offset Sanofi's patent expiry concerns on its blockbuster Taxotere, which comes off-patent later this year.

Patients in the trial who received Jevtana and prednisone lived a median of 15.1 months, while those on the mitoxantrone and prednisone lived 12.7 months. But 7.5 percent of men on Jevtana experienced fever with declines in white blood cell counts against only 1.3 percent of those on mitoxantrone.

Jevtana received fast-track designation from U.S. regulators in 2009 and could reach the market later this year. Consensus sales forecasts are \$295 million by 2014; this compares with 2009 worldwide Taxotere sales of \$3 billion. Analysts believe the new drug is likely to fetch a similar price to Taxotere, at around \$2,500 per cycle of treatment.

Pfizer Discontinues Trial of Lung Cancer Combination

Pfizer discontinued a phase 3 trial of figitumumab in combination with Tarceva as a second/third-line treatment in patients with previously treated advanced non-adenocarcinoma non-small cell lung cancer (NSCLC). An independent Data Safety Monitoring Committee recommended the trial be stopped after concluding that the addition of figitumumab to Tarceva is unlikely to demonstrate a statistically significant improvement in the primary endpoint of overall survival compared

to Tarceva alone.

"This outcome is disappointing to us and to patients with NSCLC. Pfizer is working to thoroughly analyze all available data from the figitumumab program to better understand the compound and the insulin growth factor-1 receptor pathway," says Mace Rothenberg, senior vice-president of clinical development and medical affairs for Pfizer's Oncology Business Unit.

At the end of 2009, Pfizer stopped another figitumumab trial in patients with advanced non-adenocarcinoma NSCLC, after an analysis by the Data Safety Monitoring Committee showed that addition of figitumumab to carboplatin plus paclitaxel would be unlikely to meet the primary endpoint of improved overall survival compared to paclitaxel plus carboplatin alone.

Pfizer is continuing to study figitumumab in clinical trials for the potential treatment of prostate, breast and lung cancers, and Ewing's sarcoma.

Novartis, Antisoma Halt Late-Stage NSCLC Trial

Antisoma announced that it had halted a 1,200-patient, late-stage trial of ASA404 in previously untreated non-small cell lung cancer after the planned interim analysis of data showed that "continuation of the trial would be futile, as there is little or no prospect of demonstrating a survival benefit with ASA404 in this setting."

Antisoma had partnered ASA404 with Novartis, which is also running a second late-stage trial comparing ASA404 in combination with docetaxel to docetaxel alone. Antisoma said its Swiss partner would be reviewing the entire clinical program for ASA404, although it noted that the Data Safety Monitoring Board had found no safety issues that would affect trials in other indications.

Merck Puts Hold on Stimuvax Trial After Case of Encephalitis

Merck KGaA put on hold all work with its Stimuvax cancer vaccine following a "sudden and severe" adverse event. A patient in a mid-stage trial in multiple myeloma contracted encephalitis. The patient had also received the chemotherapeutic, cyclophosphamide. It is understood to be the first time encephalitis has been reported in patients receiving Stimuvax, which has been in clinical testing for over 10 years.

Phase 3 trials with Stimuvax in lung and breast cancer have also been halted, although Merck noted that these pivotal trials were not using cyclophosphamide.

GenVec Discontinues TNFerade in Pancreatic Cancer

The risks of developing a gene therapy drug were again highlighted with the news that GenVec has discontinued TNFerade in pancreatic cancer. The company announced that it had stopped the phase 3 trial in patients with locally advanced pancreatic cancer based on results of an interim analysis. After conferring with its independent Data Safety Monitoring Board, GenVec took the decision that the trial would not meet the goal of demonstrating clear clinical effectiveness.

The 330-patient, randomized, controlled trial compared TNFerade (in combination with standard of care) to standard of care alone in patients with locally advanced pancreatic cancer. The interim data demonstrated an approximately 8 percent lower risk of death in the TNFerade arm relative to the standard of care alone group. The data was all the more disappointing as in a previous interim analysis TNFerade appeared to cut the chance of death by 25 percent. The fall-off in efficacy meant that GenVec could not realistically file an application with the U.S. Food and Drug Administration to market the therapy in the indication.

TNFerade is also being studied in head and neck cancer but the company gave no indication on

Clinical Trial Results Announced During March 2010

| DATE | COMPANY | TICKER | DRUG | INDICATION | PHASE | RESULT | NOTES |
|----------------|----------------------|--------|--|----------------------------|-------|----------|--|
| PHASE 3 | | | | | | | |
| 3/25/2010 | Shire | SHPGY | VPRIV (velaglucerase alfa for injection) | Type 1 Gaucher's disease | 3 | Positive | Type 1 Gaucher disease patients were switched from imiglucerase to VPRIV in the study (40 patients). No patients developed IgG antibodies to VPRIV, including three patients who tested positive for anti-imiglucerase antibodies at screening. Also, hemoglobin concentration, platelet counts, and liver and spleen volumes remained stable over the course of the one-year study. Most common side effects were infusion-related. |
| 3/18/2010 | Novelos Therapeutics | NVLT | NOV-002 | non-small cell lung cancer | 3 | Failed | Primary and secondary endpoints were not met in the late-stage trial in advanced non-small cell lung cancer with NOV-002, in combination with first-line chemotherapy. Adding NOV-002 to paclitaxel and carboplatin chemotherapy was not statistically or meaningfully different in terms of efficacy-related endpoints or recovery from chemotherapy toxicity versus chemotherapy alone. NOV-002 was safe, as it did not add to the overall toxicity of chemotherapy. |
| 3/17/2010 | Abraxis Bio-Sciences | ABII | Abraxane | non-small cell lung cancer | 3 | Positive | The late-stage clinical trial compared Abraxane (protein-bound paclitaxel) with Taxol injection, both in combination with carboplatin. Abraxane met the study's primary endpoint by demonstrating a significant improvement in overall response rate as compared to Taxol, in the first-line treatment of patients with advanced non-small cell lung cancer. |
| 3/12/2010 | Pfizer | PFE | Sutent | breast cancer | 3 | Failed | Two late-stage studies of Sutent in advanced breast cancer did not meet their primary endpoints. The first study - sunitinib in combination with docetaxel for the first-line treatment of advanced HER-2 negative breast cancer - did not show a statistically significant improvement in progression-free survival compared with docetaxel alone. The second - Sutent plus capecitabine, in previously-treated advanced breast cancer patients - did not show a statistically significant improvement in progression-free survival compared with capecitabine alone. |
| 3/12/2010 | Roche | RHHBY | Avastin | prostate cancer | 3 | Failed | The study did not meet its primary objective of extending overall survival compared to chemotherapy and prednisone alone. A preliminary assessment of safety has shown adverse events that have been previously observed in phase 3 trials with Avastin. |
| 3/11/2010 | Baxter | BAX | PREFLUCEL | seasonal flu | 3 | Positive | The study found a 78 percent overall protection rate against culture-confirmed influenza from influenza strains that matched those in the vaccine and a 71 percent prevention rate of influenza from all circulating strains. The U.S. study was conducted during the 2008-2009 influenza season in more than 7,000 healthy volunteers ages 18 to 49. |
| 3/9/2010 | Insys Therapeutics | | fentanyl sulin-gual spray | cancer pain | 3 | Positive | All primary and secondary endpoints were achieved in the study, and the drug is the first product to show statistically significant pain relief when measuring the summary of pain intensity difference at five minutes in a phase 3 breakthrough cancer pain trial with fentanyl. |

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Clinical Trial Results Announced During March 2010

| DATE | COMPANY | TICKER | DRUG | INDICATION | PHASE | RESULT | NOTES |
|----------------|------------------------------|----------|------------------------------------|--------------------------------------|-------|----------|---|
| 3/8/2010 | AstraZeneca | AZN | Recentin | colorectal cancer | 3 | Failed | Recentin was compared with bevacizumab, both in combination with chemotherapy. Clinical activity was observed in the Recentin arm and there was no statistically significant difference between treatment arms on the efficacy endpoints examined. But the efficacy did not meet the primary endpoint of non-inferiority in progression-free survival. Adverse events were in line with previous trials. Collection of overall survival data is ongoing. |
| 3/8/2010 | Genmab | GEN | zalutumumab | head and neck cancer | 3 | Failed | Zalutumumab failed to meet the primary endpoint of the late-stage study, a statistically significant difference in overall survival. Median overall survival in the zalutumumab group was 6.7 months versus 5.2 months in the control group. |
| 3/5/2010 | Pfizer, Bristol-Myers Squibb | PFE, BMY | apixaban | prevention of venous thromboembolism | 3 | Positive | Apixaban was statistically superior to 40 mg once daily enoxaparin in reducing the incidence of venous thromboembolism in patients undergoing elective total knee replacement surgery, according to the late-stage study. The results also showed numerically lower rates of major and clinically relevant non-major bleeding in patients treated with apixaban compared with those treated with enoxaparin. These results did not meet statistical significance. |
| 3/3/2010 | Sanofi-Aventis | SASY | Jevtana | prostate cancer | 3 | Positive | In the 755-patient trial, Jevtana plus prednisone/prednisolone significantly improved overall survival and progression-free survival in patients with metastatic, hormone refractory prostate cancer, whose disease progressed following treatment with docetaxel-based chemotherapy. Results showed that the combination therapy significantly reduced the risk of death by 30 percent, with a clinically meaningful improvement in median overall survival. |
| 3/3/2010 | Medivation | MDVN | Dimebon | Alzheimer's disease | 3 | Failed | In the late-stage, placebo-controlled trial, 598 patients with mild-to-moderate Alzheimer's were enrolled and randomized to 1 of 3 treatment groups, receiving dimebon 20 mg/5 mg/placebo three times a day, for 6 months. Dimebon did not meet its co-primary or secondary efficacy endpoints of cognition and global function. |
| 3/3/2010 | Merck & Co | MRK | AIT (allergy immunotherapy tablet) | grass pollen allergy | 3 | Positive | The study in 345 children and adolescents with grass pollen allergic rhinoconjunctivitis treated with AIT showed a 26 percent greater improvement in the total combined score (daily symptom score and daily medication score), compared to patients receiving placebo. |
| 3/1/2010 | Actelion | ATLN | Tracleer | idiopathic pulmonary fibrosis | 3 | Failed | In the late-stage trial, there was a consistent trend in favor of Tracleer, but the primary endpoint, reduction in morbidity/mortality, was not met. The well characterized safety profile of Tracleer was confirmed. |
| PHASE 2 | | | | | | | |
| 3/31/2010 | ArQule | ARQL | ARQ 197 | non-small cell lung cancer | 2 | Positive | ARQ 197, when used in combination with erlotinib, demonstrated a 66 percent improvement in median progression-free survival in patients with advanced, refractory non-small cell lung cancer. In the intent to treat population, median progression-free survival was 16.1 weeks in the ARQ 197 plus erlotinib arm, compared with 9.7 weeks in the erlotinib plus placebo arm. There were no clinically relevant differences in adverse event rates between the treatment and control arms. |

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Clinical Trial Results Announced During March 2010

| DATE | COMPANY | TICKER | DRUG | INDICATION | PHASE | RESULT | NOTES |
|-----------|-----------------------|---------|-------------|---------------------------------------|-------|----------|--|
| 3/24/2010 | Vernalis | VER | indantadol | neuropathic pain | 2 | Failed | This study enrolled 271 subjects with neuropathic pain caused by underlying diabetes into a two-week placebo run-in period. Following this, 162 subjects were enrolled into a 13-week, double blind, placebo controlled treatment phase in which they were randomised to receive placebo or up to 400mg of indantadol twice a day. Although there was a 25 percent reduction compared to baseline in pain scores in the indantadol group, there was also a marked reduction in the placebo group and consequently no significant difference between the 2 treatment arms. |
| 3/24/2010 | Novavax | NVAX | A/H1N1 | swine flu | 2 | Positive | The mid-stage study was a randomized, double-blind, placebo-controlled trial in which 1,000 healthy volunteers aged 18 to 64 years old were evaluated to determine the safety, tolerability and immunogenicity of the vaccine. The data showed that safety and immunogenicity of the vaccine were consistent with preliminary results disclosed earlier from the first 500 volunteers of Stage A where the vaccine was found to be well tolerated and immunogenic at all three dose levels tested. |
| 3/23/2010 | GW Pharmaceuticals | GWP | Sativex | cancer pain | 2b | Positive | The continuous response analysis did show statistically significant results in favor of Sativex for both the low- and mid-dose groups versus placebo. Combined, the low- and mid-dose Sativex groups were also significantly superior to placebo. In the secondary endpoint of sleep disruption, the Sativex low-dose group showed a statistically significant difference versus placebo. The combined low and mid-dose Sativex groups, when also showed a statistically significant reduction in sleep disruption versus placebo. The Sativex high dose level was less well tolerated than the low and mid dose groups. |
| 3/17/2010 | CPEX Pharmaceuticals | CPEX | Nasulin | type 2 diabetes | 2 | Failed | The mid-stage trial of the nasal insulin drug, Nasulin, did not show a statistically significant benefit over the placebo group in maintaining normal glucose levels. |
| 3/17/2010 | Human Genome Sciences | HGSI | mapatumumab | lung cancer | 2 | Failed | Results from the randomized phase 2 trial of mapatumumab in combination with the chemotherapy agents paclitaxel and carboplatin as first-line therapy in advanced non-small cell lung cancer, showed no difference in disease response or progression-free survival for the combination that included mapatumumab versus the control group. Mapatumumab was well tolerated in this study. |
| 3/17/2010 | Novartis | NVS | LCZ696 | hypertension, cardiovascular diseases | 2 | Positive | Patients with mild-to-moderate hypertension were randomised to receive eight weeks of treatment with one of three doses of LCZ696, three comparable doses of valsartan, the neprilysin inhibitor pro-drug, AHU377, or placebo. Patients who received the two higher doses of LCZ696 achieved greater average reductions from baseline in both mean sitting systolic and diastolic blood pressure than those in the comparator arms. LCZ696 was well tolerated, with no cases of angioedema reported. |
| 3/15/2010 | Icagen | Private | ICA-105665 | epilepsy | 2a | Positive | At the top dose studied (400mg/day), two of four patients demonstrated a positive response to treatment with ICA-105665, as specified by standard pre-defined criteria. At all dose levels tested, ICA-105665 was well tolerated, with no serious adverse events, no dose limiting toxicities, and no drop-outs from the study. |

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| DATE | COMPANY | TICKER | DRUG | INDICATION | PHASE | RESULT | NOTES |
|-----------|-------------------------|---------|-------------|---------------------------------------|-------|----------|--|
| 3/15/2010 | Inspire Pharmaceuticals | ISPH | Azasite | blepharitis | 2 | Failed | Azasite was studied in two mid-stage trials. In the four-week study, the drug failed to achieve statistical significance for the primary endpoint of mean lid margin hyperemia. In the two-week trial, there was no statistical significance for the primary endpoint of clearing of lid debris. |
| 3/15/2010 | Merck & Co | MRK | betrixaban | Factor xa inhibitor | 2 | Positive | Results showed that a once-daily dose of oral betrixaban, given to patients with non-valvular atrial fibrillation or atrial flutter and at least one risk factor for stroke, reduced the incidence of major and clinically relevant non-major bleeds compared to dose-adjusted warfarin |
| 3/15/2010 | Novartis | NVS | Valsartan | type 2 diabetes | 2 | Positive | Patients in the study with impaired glucose tolerance and cardiovascular disease or other risk factors, who received valsartan for at least five years in addition to background therapy and a study-specific lifestyle-modification program, achieved a statistically significant 14 percent reduction in their risk of developing new-onset diabetes compared to those in the non-valsartan group. |
| 3/12/2010 | TaiGen Biotechnology | Private | nemonoxacin | diabetic foot infection | 2 | Positive | The single arm, proof-of-concept, mid-stage study met the primary endpoints and showed promising clinical efficacy and good tolerability. Nemonoxacin is a novel non-fluorinated quinolone that has a broad spectrum of activity against gram-positive and gram-negative bacteria and atypical pathogens. It is also active against Methicillin-Resistant Staphylococcus aureus and vancomycin-resistant pathogens. |
| 3/9/2010 | Lithera | Private | LIPO-102 | selective, non-ablative fat reduction | 2 | Positive | LIPO-102, an injectable combination of salmeterol xinafoate and fluticasone propionate, was well-tolerated when administered weekly for 4 weeks. Dose and time-related reductions in abdominal circumference and skin-fold thickness measures were observed one and four weeks after treatment. A reduction of 3.47 cm in mean abdominal circumference was observed at week eight in those receiving the optimal dose of LIPO-102 once a week for four weeks. |
| 3/8/2010 | Ponid Pharmaceuticals | PARD | picoplatin | metastatic prostate cancer | 2 | Positive | The final data showed that picoplatin, in combination with docetaxel and prednisone, produced a clinically meaningful benefit in patients as measured by overall survival, progression-free survival and prostate specific antigen response rate. These results also demonstrated that picoplatin can be safely administered with full doses of docetaxel and prednisone. No neurotoxicity was observed. Neutropenia was the most common hematologic adverse event, and was managed with supportive care. |
| 3/8/2010 | Nektar Therapeutics | NKTR | NKTR-102 | platinum-resistant ovarian cancer | 2 | Positive | A total of 39 patients were enrolled with platinum-resistant disease and were evaluable for the secondary endpoint of progression-free survival. Women who received NKTR-102 once every 21 days had a median progression-free survival of 21.0 weeks. In the second arm of the study, women who received NKTR-102 once every 14 days had a median progression-free survival of 12.2 weeks. Current treatments for platinum-resistant ovarian cancer have median progression-free survival of between 9.1 and 13.6 weeks. |
| 3/8/2010 | Argos Therapeutics | Private | AGS-003 | metastatic renal cell carcinoma | 2 | Positive | AGS-003 induced a tumor-specific immune response, performed better than interferon-alpha on a measure of progression-free survival, and was well tolerated. |

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| DATE | COMPANY | TICKER | DRUG | INDICATION | PHASE | RESULT | NOTES |
|-----------|---------------------------|---------|-----------|--|-------|----------|---|
| 3/3/2010 | PTC Therapeutics, Genzyme | GENZ | Ataluren | nonsense mutation Duchenne/Becker muscular dystrophy | 2b | Failed | The primary endpoint of change in 6-minute walk distance did not reach statistical significance within the 48-week duration of the study. Study results showed that ataluren was well tolerated and no patients discontinued treatment due to an adverse event. |
| PHASE 1 | | | | | | | |
| 3/30/2010 | PolyMedix | PYMX | PMX-30063 | cardiovascular, infectious diseases | 1b | Positive | The data demonstrated that multiple doses of PMX-30063 are safe and well-tolerated at dose levels which showed bactericidal activity in blood samples drawn from subjects in the study. PMX-30063, a small-molecule mimetic of host defense proteins, has a novel mechanism of action distinct from other antibiotics, which is believed to make bacterial resistance unlikely to develop. |
| 3/29/2010 | Pearl Therapeutics | Private | PT003 | chronic obstructive pulmonary disease | 1 | Positive | The randomized, double-blind, single-dose, crossover phase 1 study assessed the safety and pharmacokinetics of the monotherapies PT001 and PT005 delivered alone and concurrently and the combination therapy PT003 administered in 16 healthy volunteers. Results showed that all of the formulations were well tolerated. |
| 3/29/2010 | Ligand Pharmaceuticals | LGND | LGD-4033 | non-steroidal selective androgen receptor modulator | 1 | Positive | LGD-4033 was well tolerated by healthy male volunteers after single oral doses up to 22mg, the highest dose tested. No serious adverse events were reported. Systemic exposure of LGD-4033 increased proportionally with the dose level after a single oral dose. Sustained systemic exposure was observed with appreciable plasma levels of LGD-4033 detectable a week post-dose. |
| 3/26/2010 | AIKO Biotechnology | Private | AIKO-150 | pain management | 1 | Positive | The trial demonstrated that AIKO-150 does not interfere with pain relief in healthy subjects at doses which prevent the gastro-intestinal slowing (i.e. constipation) associated with opioid use. There were no significant adverse effects. |
| 3/23/2010 | Othera Pharmaceuticals | Private | OT-551 | advanced dry age-related macular degeneration | 1, 2 | Positive | All subjects received 0.45 percent OT-551 daily for 24 months in one eye. The untreated fellow eye served as a control in the study. A statistically significant difference in favor of OT-551 was observed in the primary endpoint, mean change in best-corrected visual acuity at the end of 24 months. No other meaningful differences between study eyes and fellow eyes were observed in other endpoints. There were no drug-related serious adverse events. |
| 3/23/2010 | Pain Therapeutics | PTIE | PTI-188 | metastatic melanoma | 1 | Positive | In the early-stage study with PTI-188, nearly 70 percent of patients showed stable disease in target lesions at the conclusion of the 6-week study. In a second phase I study, approximately 40 percent of patients showed stable disease at week 14. Preliminary analysis, combining both clinical studies, indicates a median overall survival time of 13 months. |
| 3/18/2010 | MediciNova | MNOV | MN-221 | chronic obstructive pulmonary disease | 1b | Positive | The phase Ib study to evaluate the safety and efficacy of MN-221 in patients with stable, moderate to severe chronic obstructive pulmonary disease demonstrated clinically significant improvements in percent change in forced expiratory volume in one second. There were no clinically significant safety concerns noted. |

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Clinical Trial Results Announced During March 2010

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| DATE | COMPANY | TICKER | DRUG | INDICATION | PHASE | RESULT | NOTES |
|-----------|---------------------|---------|------------------|----------------------|-------|----------|---|
| 3/10/2010 | Limerick BioPharma | Private | LIM-0705 | transplant rejection | 1a | Positive | LIM-0705 is designed for administration alongside tacrolimus, which is used to prevent transplant rejection. LIM-0705 pumps out the toxicities caused by tacrolimus in the pancreas, brain and kidneys. No serious adverse events were noted. Pharmacokinetic analysis revealed that LIM-0705 favorably altered tacrolimus tissue distribution in a majority of subjects compared to dosing tacrolimus alone. |
| 3/10/2010 | BioAlliance Pharma | BIO | fentanyl Lauriad | cancer pain | 1 | Positive | The fentanyl was detected in the plasma soon after the application of each formulation and plasma concentrations remained stable over the next 24 hours, with low intersubject variability. Both muco-adhesive buccal formulations displayed a good local safety profile. |
| 3/8/2010 | Takeda (Millennium) | 4502 | TAK-700 | prostate cancer | 1 | Positive | TAK-700 was administered in one of five dose levels (100-600mg). Some 26 previously treated patients with metastatic castration-resistant prostate cancer were enrolled. Patients who received 300mg or more twice daily for three or more cycles experienced a decrease in prostate-specific antigen levels. A total of 23 of the 26 patients experienced at least one drug-related treatment-emergent adverse event. There were no dose limiting toxicities in the trial. |
| 3/8/2010 | Action Pharma | Private | AP1030 | type 2 diabetes | 1b | Positive | Results from the early-stage study in 50 obese human volunteers showed that oral AP1030 administered once-daily for 2 weeks had a positive effect on glucose metabolism. It was well tolerated and did not increase blood pressure, which has been a challenge with earlier drug candidates targeting MCR4 receptors. |
| 3/1/2010 | Avineuro | Private | AVN-322 | Alzheimer's disease | 1 | Positive | AVN-322 is a potent and selective small molecule antagonist of the 5-HT ₆ receptor for treatment of Alzheimer's disease. It was well tolerated in a wide range of doses and no adverse events were observed. |
| 3/1/2010 | Icagen | ICGN | ICA-105665 | pain | 1b | Failed | At the dose tested in the early-stage trial, 200mg bid, ICA-105665 did not reduce the pain elicited in the capsaicin or sunburn models. The compound was well tolerated with no serious adverse events and with similar numbers of adverse events across treatment groups. |

FDA/EMEA Drug Approvals

| DATE | COMPANY | COMPOUND | INDICATION | COUNTRY OF APPROVAL |
|------------|---|---|---|---------------------|
| 03/01/2010 | CombinatoRx/ Covidien | Exalgo | Pain management | United States |
| 03/04/2010 | CSL Behring | Hizentra | Primary Immunodeficiency | United States |
| 03/10/2010 | Watson Pharmaceuticals | Trelstar | Advanced Prostate Cancer | United States |
| 03/17/2010 | Somaxon Pharmaceuticals | Silenor | Insomnia | United States |
| 03/17/2010 | Galderma Research and Development | Differin | Acne Vulgaris | United States |
| 03/17/2010 | APP Pharmaceuticals | Indomethacin (generic of Lundbeck's Indocin) | Patent ductus arteriosus, a common congenital heart defect | United States |
| 03/17/2010 | Novartis Vaccines and Diagnostics | Agriflu | Seasonal Influenza Vaccine | Canada |
| 03/18/2010 | Recordati | Carbaglu | Acute hyperammonemia | United States |
| 03/18/2010 | Roche | Tarceva | Non-small cell lung cancer | European Union |
| 03/18/2010 | Apotex Europe | Olanzapine Apotex | Schizophrenia | European Union |
| 03/18/2010 | Hospira | Nivestim (similar to Amgen's Neupogen) | Neutropenia | European Union |
| 03/18/2010 | Three Rivers Global Pharma | Ribavirin Three Rivers (generic of Merck's Rebetol) | Chronic hepatitis C | European Union |
| 03/18/2010 | Krka, d.d., Novo mesto | Tolura (generic of Boehringer Ingelheim's Micardis) | Essential hypertension in adults | European Union |
| 03/18/2010 | Hospira | Topotecan Hospira | Relapsed small cell lung cancer Recurrent Carcinoma of the cervix recurrent | European Union |
| | Novo Nordisk Canada | NiaStase RT | Haemophilia A/B bleeding episodes (new formulation) | United States |
| 03/19/2010 | Boehringer Ingelheim | Mirapex (extended release) | Parkinson's disease | United States |
| 03/24/2010 | Salix Pharmaceuticals | Xifaxan | Potential recurrence of overt hepatic encephalopathy | United States |
| 03/25/2010 | Graceway Pharmaceuticals | Zyclara | Actinic keratosis of the face and/or scalp | United States |
| 03/23/2010 | Applied Pharma Research Labtec SciClone BioAlliance Pharma | Ondansetron RapidFilm / SetoFilm (new form) | Nausea and vomiting caused by chemotherapy, radiotherapy, and surgery | Europe* |
| 03/25/2010 | BioAlliance Pharma | Loramyc | Anti-mycosis | Europe** |
| 03/30/2010 | Chemische Fabrik Kreussler | Asclera | Small varicose veins | United States |
| 03/31/2010 | GlaxoSmithKline | Duodart | Benign Prostatic Hyperplasia | Europe* |

* Drug has been approved under the EU decentralized procedure in 16 major European Union countries, not the entire EU

** Drug has been approved in 13 additional European countries through a Mutual Recognition Procedure with France

Upcoming PDUFA Dates

| COMPANY | TICKER | COMPOUND | INDICATION | PDUFA DATE | NOTES |
|-------------------------------------|--------------|--|---|------------|--|
| CombinatoRx/ Covidien | CRXX COV | Exalgo | Pain management | 03/01/2010 | Approved |
| CSL Behring (CSL Limited) | ASX:CSL | Hizentra TM (immune globulin subcutaneous) | Immunoglobulin replacement therapy for patients with primary immunodeficiency | 03/05/2010 | Approved 3/5/2010 |
| ChemGenex/Hospira | CXSPY HSP | Omapro | Chronic myeloid leukemia | 03/08/2010 | FDA wants genetic test to identify patients before granting approval |
| Amylin Eli Lilly | AMLN LLY | Byetta-once daily | Diabetes | 03/12/2010 | Complete Response Letter |
| MannKind | MNKD | Afresa inhaled insulin | Diabetes | 03/12/2010 | Complete Response Letter |
| TiGenix (UK) | | ChondroCelect | Cell therapy to repair knee cartilage | 03/18/2010 | Complete Response Letter |
| Somaxon Pharmaceuticals | SOMX | Silenor | Insomnia | 03/21/2010 | Approved |
| Salix Pharmaceuticals | SLXP | Xifaxan (rifaximin) | Hepatic encephalopathy in combination with lactulose | 03/24/2010 | Approved |
| Cephalon | CEPH | Nuvigil | Jet lag disorder | 03/29/2010 | Complete Response Letter |
| Abbott Laboratories/ AstraZeneca | ABT AZN | Certriad | Cholesterol reducer | 04/04/2010 | Complete Response Letter |
| Cell Therapeutics | CTIC | Pixantrone | Relapsed/refractory aggressive NHL | 04/23/2010 | Complete Response Letter |
| Pozen AstraZeneca | POZN AZN | Vimovo | Autoimmune | 04/30/2010 | |
| Sepracor | SEPR | Stedesa | Partial-onset seizures in adults with epilepsy | 04/30/2010 | |
| Bristol-Myers Squibb | BMY | Belatacept | Transplant antirejection | 05/01/2010 | |
| Dendreon | DNDN | Provenge | Metastatic castrate-resistant prostate cancer | 05/01/2010 | |
| InterMune | ITMN | pirfenidone | Idiopathic pulmonary fibrosis | 05/04/2010 | |
| Genzyme | GENZ | Lumizyme Myozyme | Pompe disease | 06/17/2010 | |
| Vivus | VVUS | Qnexa | Obesity | 07/15/2010 | |
| NicOx (France) | NCOX.PA | Naproxcinod | Osteoarthritis | 07/24/2010 | |
| Amgen | AMGN | Prolia | Osteoporosis caused by menopause | 07/25/2010 | |
| Theratechnologies | TSX:TH | Tesamorelin | Excess abdominal fat in HIV-infected patients with lipodystrophy | 07/27/2010 | Changed from 3/29 |
| Javelin Pharmaceuticals | JAV | Dyloject Injection (diclofenac sodium) | Management of acute moderate-to-severe pain in adults | 10/03/2010 | |
| Alexza Pharmaceuticals | ALXA | Staccato (loxapine) | Agitation in patients with schizophrenia or bipolar disorder | 10/11/2010 | |
| Ista Pharmaceuticals | ISTA | XiDay (bromfenac ophthalmic solution) | Treatment of ocular inflammation and pain following cataract surgery | 10/16/2010 | |
| Arena Pharmaceuticals | ARNA | Lorcaserin | Treatment of obesity | 10/22/2010 | |

Burrill Select Index Rises in March

The Burrill Biotech Select Index rose 3.7 percent in March and recorded a healthy 8 percent jump in value for the first quarter of 2010. The Biotech Select Index lagged the major indices in March as the Dow Jones Industrial Average gained 5.5 percent and the Nasdaq Composite Index rose 7.1 percent, but outperformed them for the quarter as the Dow Jones Industrial Average only gained 4.5 percent, while the Nasdaq Composite Index was up 5.7 percent in Q1 2010. However, the Biotech Select Index came nowhere near the performance of the Amex Biotech Index which gained 18 percent in March, and a whopping 30.3 percent in the first quarter of 2010.

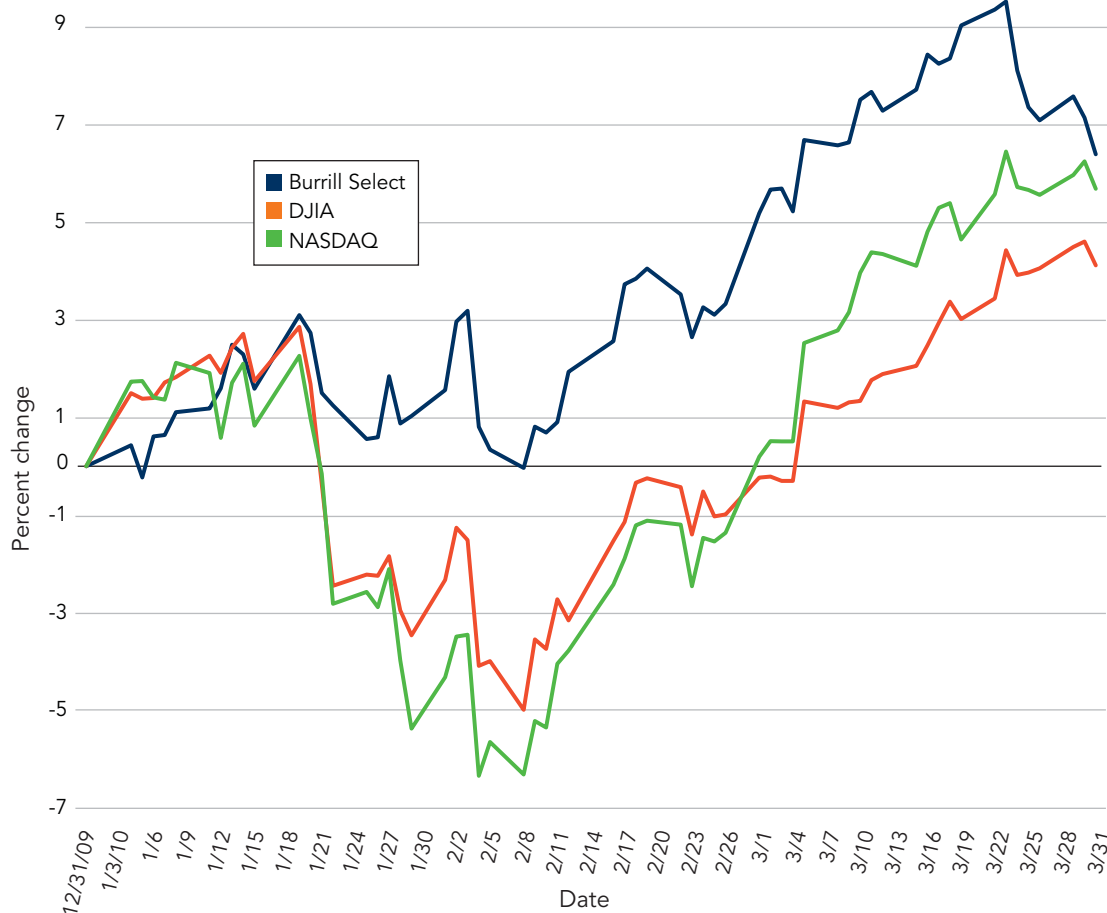
Strong performances from Amylin Pharmaceuticals, Affymetrix, and Illumina helped push the index higher. Shares of Amylin Pharmaceuticals (AMLN), for example, were up 19 percent in March and 58.5 percent for the quarter after the company revealed that the U.S. Food and Drug Administration did not ask it, along with partners Eli Lilly (LLY) and Alkermes (ALKS), to conduct additional studies on the drug exenatide LAR, or Bydureon, a once-weekly version of the twice-daily Byetta injection. Illumina's (ILMN) shares jumped 7.1 percent for the month and 26.5 percent for the quarter. The company received some favorable

publicity following the sequencing of the genome of American film actress Glenn Close.

Affymetrix (AFFX) saw its shares gain 24 percent in the quarter, despite remaining flat in March. Most of the pop in the company's shares came in February after the genetic analysis instrument maker surprised Wall Street by reporting a profit in its fourth quarter. In addition in March, the company and the Jackson Laboratory announced the full commercial launch of the Affymetrix Mouse Diversity Genotyping Array. This is the first high-density genotyping array that enables researchers to study the complexity of the mouse genome and the diversity among mouse strains. Because mice and humans share genomes of similar size, content, and organization, mice studies are key elements in the quest to cure human health issues.

Osiris Therapeutics (OSIR) was the biggest loser in March, with shares falling 10 percent in value, while Exelixis (EXEL) was the biggest loser in the quarter, with shares losing 18.4 percent of their value. The company announced in March that it would reduce its workforce by 270 employees, or 40 percent, in a re-evaluation of its pipeline to focus on its most advanced drugs. The move was an effort to ensure the company had enough money to last through 2011 when it expects to file for approval of XL 184 as a treatment for inoperable thyroid cancer, partnered with Bristol-Myers Squibb (BMY). The company said it will reduce its work on new drugs and expects to save about \$90 million a year beginning in 2011.

Burrill Select Index vs DJIA and NASDAQ



Small-Cap Index Beats Mid- and Large-Cap

The performance of small biotech firms soared in March driving the Burrill Biotech Small-Cap Index up 11.4 percent, and outperforming all other Burrill biotech indices, the Dow Jones Industrial Average, up 5.5 percent in March and 4.5 percent in the first quarter, and Nasdaq Composite Index, up 7.1 percent in March and 5.7 percent in the first quarter of 2010. However, the Burrill Biotech Small-Cap Index did not beat the performance of the Amex Biotech Index, which gained 18 percent in March and 30.3 percent in the first quarter of 2010.

Leading the gainers in the group was drug developer Facet Biotech (FACT) as shares of the company surged and closed the month up 65 percent on news that Abbott Laboratories (ABT) was going to purchase the company at an enterprise value of \$722 million, \$450 million in cash and the assumption of debt. Abbott's offer of \$27 per share, represented a 67 percent premium to Facet's \$16.21 closing stock price on March 9, the

day the deal was announced. Facet shares gained 53 percent in the first quarter 2010, and were the leading gainer in the index.

Chelsea Therapeutics (CHTP) saw its share value jump 31 percent in March and the quarter, on the strength of positive financials as the company narrowed its net loss by almost \$10 million in 2009. Array BioPharma (ARRY) posted a 22 percent share value gain in March, but was down 0.7 percent in the quarter. The Boulder, Colorado-based research biotech reported a 25 percent revenue jump for its most recent quarter and a loss on the quarter of 44 cents a share, beating analysts' expectations of a 55-cent loss.

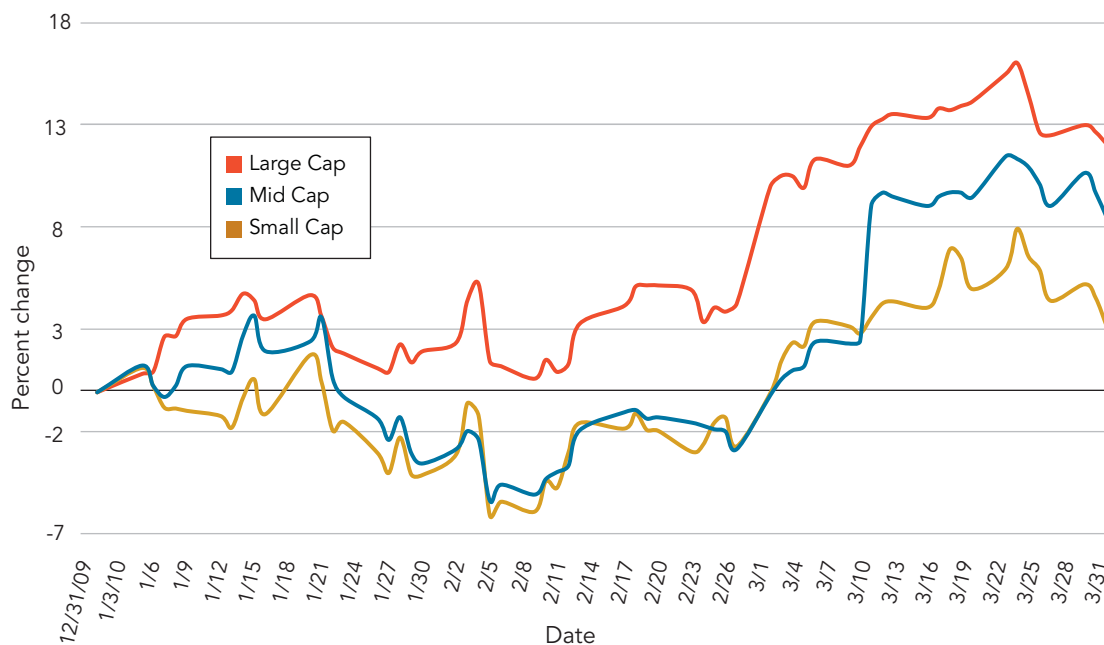
The steepest quarterly loss in the index was experienced by Molecular Insight Pharmaceuticals (MIPI) with shares losing 43 percent of their value, despite gaining 4 percent in March. The Burrill Biotech Large-Cap Index gained a healthy 7.3 percent in March pushing its year-to-date performance to almost 12 percent.

The Index was boosted by the surge in share price of OSI Pharmaceuticals (OSIP) following Japanese drugmaker Astellas Pharma's (TKO:4503) hostile bid to acquire the Melville, New York drug maker in March. Astellas's offer of \$52-per-share was deemed "inadequate" by OSI and "substantially undervalues" its assets. OSI's shares closed the month up 61 percent and rose 91 percent for the quarter. There was also considerable investor enthusiasm for Incyte (INCY) as the drug discovery company gets ready to announce the results of a mid-stage study for an oral rheumatoid arthritis drug in April, which analysts expect to be positive. Shares of Incyte closed the month up 30 percent and rose 52 percent for the quarter.

The Burrill Biotech Mid-Cap Index monthly performance mirrored the general market indices rising almost 6 percent in March and 3.1 percent in the quarter.

Leading the charge was Questcor Pharmaceuticals (QCOR), which was up 75 percent for month and the quarter, on solid earnings data. Net sales totaled \$25.9 million for the quarter ended December 31, 2009 compared to \$13.9 million for the quarter ended September 30, 2009. Pharmasset's (VRUS) shares rose 26 percent in March and 28 percent in the quarter mainly on news of a smaller fiscal first-quarter loss, as its spending decreased after it stopped development of a potential hepatitis B drug. Pharmasset said it lost \$13.9 million, or 49 cents per share compared to \$18.3 million, or 78 cents per share, a year earlier. In 2009 ImmunoGen (IMGN) posted a healthy 22 percent gain in share value in March and was up 2.4 percent in the quarter. U.S. and European regulators gave the company's potential cancer drug IMGN901 "orphan drug" status for use as a treatment for Merkel cell carcinoma, which is a rare type of aggressive cancer that develops beneath the skin.

Small, Medium and Large-Cap Indices. March 2010



Burrill Personalized Medicine Index Rises

The Burrill Personalized Medicine index posted a modest 3 percent gain for the month and quarter, but lagged the major indices in both the month and the quarter as the Dow Jones

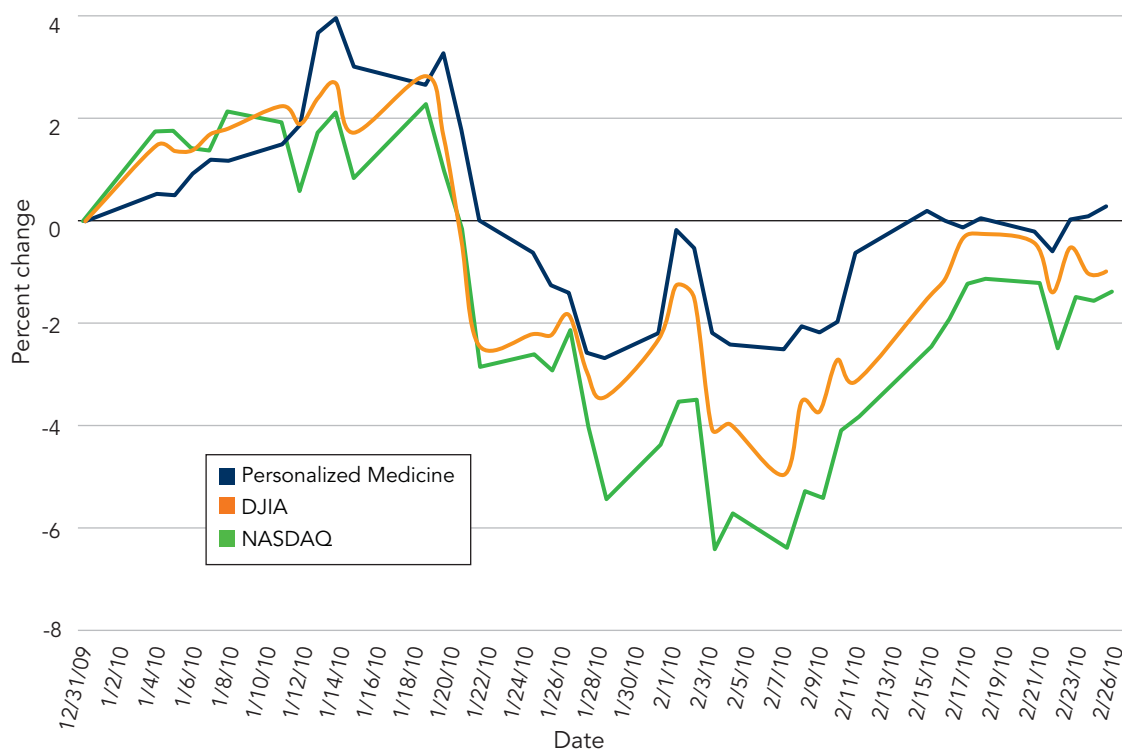
Industrial Average gained 5.5 percent in March and was up 4.5 percent in the first quarter while the Nasdaq Composite Index rose 7.1 percent in March and 5.7 percent in the first quarter of 2010.

In addition to the strong showings by Affymetrix (see Select Index) and Exact Sciences (see Diagnostic Index), AspenBio Pharma (APPY) posted a 13 percent gain in March and a 27 percent gain in the quarter. The company reported that it had completed patient enrollment for its AppyScore pivotal clinical trial designed to evaluate 800 patients suspected of having acute appendicitis.

The study has now advanced to the data analysis phase, which the company estimates will take six to eight weeks to independently review and validate final clinical and assay data and statistical analysis. AspenBio plans on completing an FDA 510(k) submission in the second quarter of 2010.

Shares of CombiMatrix (CBMX) fell 14.4 percent in March and 20.2 percent in the first quarter 2010, the steepest decline in the index. The company reported 2009 financial results mid-March that included a decline in revenues, \$4.9 million in 2009 compared to \$6.3 million in 2008. Net loss also increased from the previous year at \$17.6 million in 2009 compared to \$15 million in 2008.

Burrill Personalized Medicine Index, March 2010



Burrill Diagnostics Index Turns Positive

The Burrill Diagnostics Index rose 3.9 percent in March, which helped bring its first quarter performance back into the black at a 1.5 percent gain, but lagged the major indices in March and the quarter as the Dow Jones Industrial Average gained 5.5 percent in March and was up 4.5 percent in the first quarter while the Nasdaq Composite Index

rose 7.1 percent in March and 5.7 percent in the first quarter of 2010.

Helping drive the sector was the strong quarter performance of Sequenom (SQNM). Although shares dropped 3 percent in value in March, they gained 51 percent in the first three months of the year on the strength of an analyst's upgrade of the stock. They indicated that the recent

sell-off in the stock had created a buying opportunity, and that the company would eventually prevail in bringing its Down syndrome prenatal test to market. Sequenom settled a shareholder lawsuit concerning its mishandling of its Down's syndrome trial results in January.

Orchid Cellmark (ORCH), a provider of identity DNA testing services, posted a strong surge in its share price in March (up 27 percent, 14.6 percent for the quarter) thanks to reporting 2009 revenues of \$59.1 million, an increase of 3 percent over 2008.

The improvement was driven by growth in their core forensics business in the U.K. Molecular diagnostics company Exact Sciences (EXAS) has been receiving a lot of interest, which has helped the company's share price rise 31 percent in the quarter (8 percent in March). The company has exclusive intellectual property protecting its non-invasive, molecular screening technology for the detection of colorectal cancer and it returned positive 2009 financials.

Shares of Genomic Health (GHDX) lost 9.8 percent of their value during the first quarter 2010 (down 1.7 percent in March) despite the fact the company reported positive financial results for 2009 including positive cash flow for the year and a 35 percent revenue growth compared with 2008.

Burrill Diagnostics Index



Burrill Biogreentech Index gains 6 percent

The Burrill Biogreentech Index gained almost 6 percent in March but was up only 1.2 percent in the first quarter 2010. The Index compared favorably with major indices for the month, but lagged for the quarter as the Dow Jones Industrial Average gained 5.5 percent in March and was up 4.5 percent in the first quarter while

the Nasdaq Composite Index rose 7.1 percent in March and 5.7 percent in the first quarter of 2010.

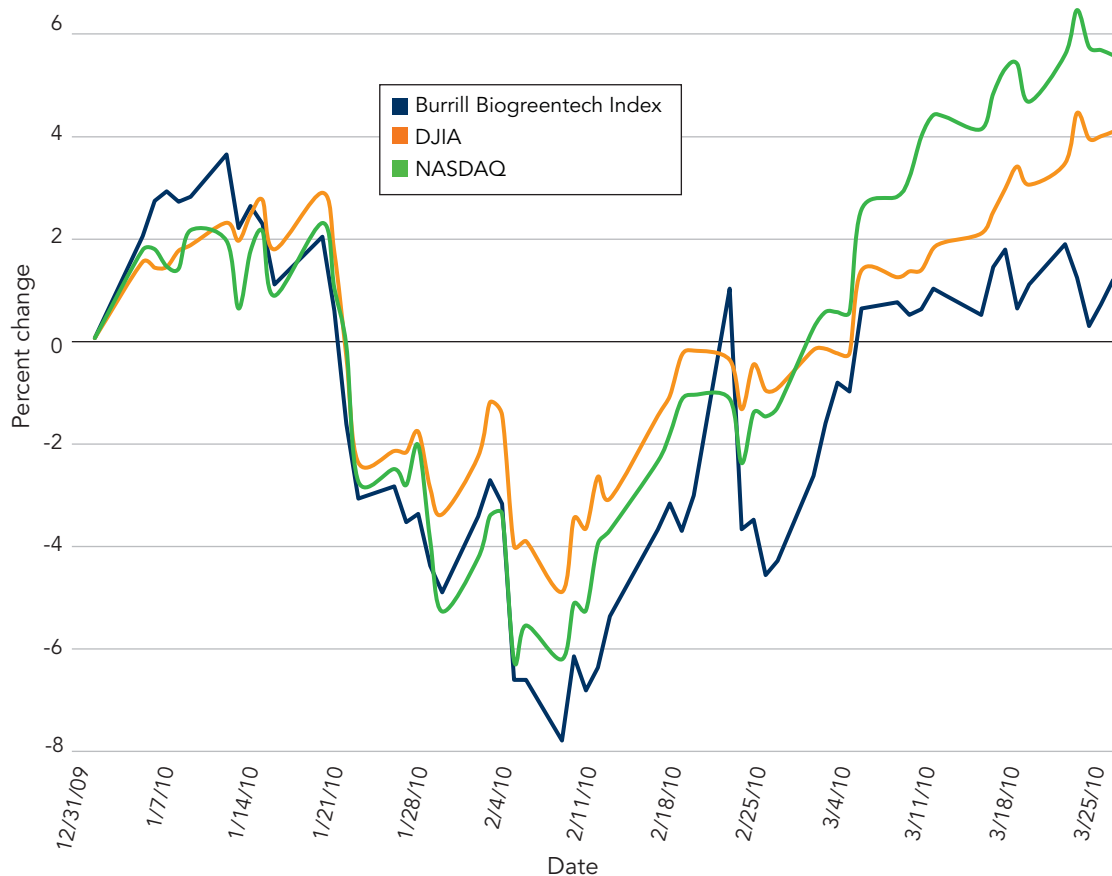
Leading the gainers in the group was Metabolix (MBLX) whose shares climbed 28 percent in March and were up 10 percent in the quarter. The biosciences company, focused on developing

sustainable solutions for plastics, chemicals and energy, reported that the manufacturing of Mirel bioplastic has begun and initial commercial deliveries to customers were within the next month. The company's bioplastic products are already used in gift cards and ball-point pens.

After seeing its shares soar in February ethanol producer Green Plains Renewable (GPRE) came down to earth in March with a 16 percent drop in value for the month and a 4 percent drop for the quarter. The company completed a share offering raising net proceed of approximately \$79.3 million from the sale of 5.5 million shares of its common stock at \$13.50 per share, plus an additional 825,000 shares that covered over-allotments.

Shares of China's Origin Agritech (SEED) jumped 13 percent in March but still remained underwater to the tune of 15 percent for the first quarter. The pop in Origin's share value resulted from news that the seed company had formed a pesticide business unit. The company expects to launch a glyphosate product—an herbicide used to kill weeds—in the Chinese agricultural market for the 2010 season. Glyphosate was initially patented and sold by U.S. seed giant Monsanto (MON) in the 1970s under the name Roundup. Its U.S. patent expired in 2000. The chemical is the most-used herbicide in the United States.

Burrill Biogreentech Index, March 2010



STOCK DATA

Winners and Losers March 2010

| COMPANY | TICKER | SHARE PRICE CHANGE | NOTES |
|--------------------------|--------|--------------------|--|
| WINNERS | | | |
| InterMune | ITMN | 224.38% | FDA panel recommended that the agency approve its drug, pirfenidone |
| Somaxon Pharmaceuticals | SOMX | 121.48% | Receives FDA approval for insomnia drug |
| Arca Bio | ARCA | 82.89% | The USPTO issued the company a patent related to uses of Gencaro, its heart-failure treatment |
| Questcor Pharmaceuticals | QCOR | 75.85% | Posted earnings that beat the Street's estimates |
| ArQule | | 73.86% | The company's ARQ 197 compound effective in helping slow the progression of lung cancer. |
| Gentium SpA | GENT | 73.48% | Strong financials push up share value |
| Facet Biotech | FACT | 64.67% | Share value increases on Abbott buy-out offer |
| OSI Pharmaceutical | OSIP | 60.86% | Astellas Pharma extends all-cash tender offer to buy company |
| APP Pharmaceuticals | ABII | 59.97% | Reports positive late stage trials results |
| Pozen | POZN | 59.40% | Arthritis treatment Vimovo is under FDA review with a response expected shortly. Investors have pushed up the value of the shares expecting a positive response. |
| LOSERS | | | |
| Medivation | MDVN | -70.87% | Disappointing trial results and wider than expected loss in financial results |
| GenVec | GNVC | -66.81% | Halts Phase 3 study of its drug TNFerade due to poor results |
| AP Pharma | APPA | -45.45% | FDA will not approve APF350 for the treatment of chemotherapy-induced nausea until more supporting information is provided. |
| Interleukin Genetics | ILI | -35.34% | Company cited with others in patent infringement case |
| Cytori Therapeutics | CYTX | -34.39% | Shares tumble on news that additional clinical testing needed to gain approval of its Celution system |
| MannKind | MNKD | -34.33% | FDA requests more information on its experimental inhaled insulin device |
| ARYx Therapeutics | ARYX | -29.27% | Unable to find partner. Reduces staff and is examining its strategic options |
| Oncothyreon | ONTY | -28.13% | Clinical trial for its Stimuvax drug has been halted |
| Poniard Pharmaceuticals | PARD | -26.28% | It will halt plans to gain regulatory approval for potential cancer drug picoplatin |
| PharmAthene | PIP | -20.77% | Shares trend downwards due to general market conditions |

» (continued)

Company financial data, ranked by market cap

| COMPANY | TICKER | 2009 REVENUE (USD M) | 2009 R&D (USD M) | 2009 NET INCOME (USD M) | 2009 CASH & CASH EQUIVALENTS (USD M) | CLOSE PRICE 12/31/09 | CLOSE PRICE 3/31/10 | MARKET CAP (USD M) 3/31/10 | SHARE PRICE % CHANGE YTD |
|------------------------------------|--------|----------------------|------------------|-------------------------|--------------------------------------|----------------------|---------------------|----------------------------|--------------------------|
| Amgen | AMGN | 14642.00 | 3053.00 | 4605.00 | 13442.00 | 56.57 | 59.84 | 61434.60 | 5.78% |
| Gilead Sciences | GILD | 7011.38 | 927.10 | 2635.76 | 1656.98 | 43.27 | 45.47 | 41116.70 | 5.08% |
| Celgene | CELG | 2689.89 | 714.00 | 776.75 | 2996.75 | 55.68 | 61.96 | 28447.69 | 11.28% |
| Biogen Idec | BIIB | 4377.35 | 1232.88 | 970.13 | 1263.72 | 53.5 | 57.39 | 16577.68 | 7.27% |
| Genzyme | GENZ | 4515.53 | 855.66 | 422.30 | 905.88 | 49.01 | 51.83 | 14064.23 | 5.75% |
| Shire ADR | SHPGY | 3007.00 | 638.30 | 491.60 | 532.00 | 58.7 | 66.01 | 12328.03 | 12.45% |
| Quest Diagnostics | DGX | 7455.24 | 0.00 | 729.11 | 534.26 | 60.38 | 58.29 | 10827.37 | -3.46% |
| Life Technologies | LIFE | 3280.34 | 286.34 | 144.59 | 607.35 | 52.22 | 52.27 | 9217.29 | 0.10% |
| Vertex Pharmaceuticals | VRTX | 101.89 | 522.44 | (642.18) | 1284.91 | 42.85 | 40.87 | 7383.57 | -4.62% |
| Millipore | MIL | 1654.41 | 57.94 | 177.00 | 168.33 | 72.35 | 105.60 | 5917.08 | 45.96% |
| Cephalon | CEPH | 2192.31 | 387.44 | 342.63 | 1647.64 | 62.42 | 67.78 | 5059.78 | 8.59% |
| Illumina | ILMN | 666.32 | 140.62 | 72.28 | 693.53 | 30.68 | 38.90 | 4828.99 | 26.79% |
| Hologic | HOLX | 1637.13 | 94.33 | (2176.24) | 294.10 | 14.5 | 18.54 | 4752.45 | 27.86% |
| Qiagen N.V. | QGEN | 1009.83 | 105.10 | 137.77 | 865.56 | 22.33 | 22.99 | 4549.58 | 2.96% |
| Alexion Pharmaceuticals | ALXN | 386.80 | 78.47 | 295.17 | 176.22 | 48.82 | 54.37 | 4235.97 | 11.37% |
| Human Genome Sciences | HGSI | 275.75 | 173.71 | 5.66 | 719.20 | 30.58 | 30.20 | 4099.53 | -1.24% |
| Covance | CVD | 1962.63 | 0.00 | 175.88 | 289.47 | 54.57 | 61.39 | 3889.24 | 12.50% |
| Elan (ADR) | ELN | 1113.00 | 293.60 | (176.20) | 843.60 | 6.52 | 7.58 | 3727.84 | 16.26% |
| Dendreon | DNDN | 0.10 | 71.53 | (220.16) | 576.95 | 26.28 | 36.47 | 3581.43 | 38.77% |
| Valeant Pharmaceuticals | VRX | 830.46 | 64.67 | 263.74 | 81.87 | 31.79 | 42.91 | 3526.30 | 34.98% |
| OSI Pharmaceutical | OSIP | 428.15 | 152.56 | 75.93 | 469.59 | 31.06 | 59.55 | 3449.20 | 91.73% |
| Idexx Laboratories | IDXX | 1031.63 | 65.12 | 122.23 | 106.73 | 53.45 | 57.55 | 3402.87 | 7.67% |
| Amylin Pharmaceuticals | AMLN | 758.42 | 250.32 | (186.26) | 667.77 | 14.19 | 22.49 | 3121.61 | 58.49% |
| Inverness Medical Innovations | IMA | 1922.64 | 107.80 | 33.72 | 493.72 | 41.51 | 38.95 | 3062.48 | -6.17% |
| Herbalife | HLF | 2324.58 | 0.00 | 203.35 | 150.80 | 40.57 | 46.12 | 2836.38 | 13.68% |
| Pharmaceutical Product Development | PPDI | 1416.77 | 27.67 | 159.30 | 553.55 | 23.44 | 23.74 | 2798.42 | 1.28% |
| Endo Pharmaceuticals | ENDP | 1460.84 | 185.32 | 266.34 | 733.74 | 20.52 | 23.69 | 2781.23 | 15.45% |
| PerkinElmer | PKI | 1812.20 | 0.00 | 85.60 | 179.71 | 20.59 | 23.90 | 2776.61 | 16.08% |
| Biovail | BVF | 820.43 | 135.53 | 176.46 | 124.03 | 13.96 | 16.77 | 2653.28 | 20.13% |
| Gen-Probe | GPRO | 498.30 | 105.30 | 91.78 | 485.61 | 42.92 | 50.00 | 2616.85 | 16.50% |
| Charles River Laboratories | CRL | 1202.55 | 0.00 | 114.44 | 182.57 | 33.69 | 39.31 | 2583.41 | 16.68% |
| Bruker BioSciences | BRKR | 1114.50 | 127.60 | 81.20 | 207.10 | 12.06 | 14.65 | 2403.60 | 21.48% |
| Talecris Biotherapeutics | TLCR | 1533.21 | 71.22 | 153.89 | 65.24 | 22.27 | 19.92 | 2386.02 | n/a |
| Biomarin Pharmaceutical | BMRN | 324.66 | 104.77 | (0.49) | 300.68 | 18.81 | 23.37 | 2336.09 | 24.24% |
| Myriad Genetics | MYGN | 326.53 | 17.91 | 84.62 | 316.86 | 26.09 | 24.05 | 2306.88 | -7.82% |
| APP Pharmaceuticals | ABII | 359.05 | 118.28 | (103.12) | 203.31 | 40.55 | 51.75 | 2073.67 | 27.62% |
| Regeneron Pharmaceuticals | REGN | 379.27 | 383.28 | (67.83) | 341.33 | 24.18 | 26.49 | 2059.07 | 9.55% |
| InterMune | ITMN | 48.70 | 89.82 | (116.02) | 86.95 | 13.04 | 44.57 | 1956.98 | 241.79% |

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» (continued)

Company financial data, ranked by market cap

| COMPANY | TICKER | 2009 REVENUE (USD M) | 2009 R&D (USD M) | 2009 NET INCOME (USD M) | 2009 CASH & CASH EQUIVALENTS (USD M) | CLOSE PRICE 12/31/09 | CLOSE PRICE 3/31/10 | MARKET CAP (USD M) | SHARE PRICE % CHANGE YTD |
|---------------------------|--------|----------------------|------------------|-------------------------|--------------------------------------|----------------------|---------------------|--------------------|--------------------------|
| Salix Pharmaceuticals Ltd | SLXP | 232.89 | 84.03 | (43.62) | 192.51 | 25.39 | 37.25 | 1792.43 | 46.71% |
| Onyx Pharmaceuticals | ONXX | 251.39 | 126.91 | 16.16 | 550.11 | 29.34 | 30.28 | 1717.36 | 3.20% |
| Immucor | BLUD | 300.55 | 10.70 | 76.18 | 136.46 | 20.24 | 22.39 | 1577.08 | 10.62% |
| ICON (ADR) | ICLR | 887.61 | 0.00 | 94.30 | 194.03 | 21.73 | 26.41 | 1546.49 | 21.54% |
| United Therapeutics | UTHR | 369.85 | 129.95 | 19.46 | 229.49 | 52.65 | 55.33 | 1462.70 | 5.09% |
| Nektar Therapeutics | NKTR | 71.93 | 111.65 | (102.52) | 396.21 | 9.32 | 15.21 | 1407.02 | 63.20% |
| Incyte | INCY | 9.27 | 122.49 | (211.87) | 470.42 | 9.11 | 13.93 | 1355.95 | 52.91% |
| Parexel International | PRXL | 1246.88 | 0.00 | 39.31 | 96.35 | 14.1 | 23.31 | 1342.96 | 65.32% |
| Auxilium Pharmaceuticals | AUXL | 164.04 | 52.41 | (53.46) | 181.98 | 29.98 | 31.16 | 1322.84 | 3.94% |
| Acorda Therapeutics | ACOR | 54.67 | 34.61 | (83.94) | 272.39 | 25.2 | 34.2 | 1305.07 | 35.71% |
| Cubist Pharmaceuticals | CBST | 562.14 | 153.11 | 79.60 | 319.00 | 18.97 | 22.54 | 1297.11 | 18.82% |
| Alkermes | ALKS | 183.68 | 93.67 | (38.29) | 323.66 | 9.41 | 12.97 | 1225.69 | 37.83% |
| Isis Pharmaceuticals | ISIS | 121.60 | 129.67 | 155.07 | 574.31 | 11.11 | 10.93 | 1068.82 | -1.62% |
| ViroPharma | VPHM | 310.45 | 44.90 | (11.08) | 331.67 | 8.39 | 13.63 | 1055.06 | 62.46% |
| WuXi PharmaTech | WX | 270.02 | 0.00 | 52.87 | 102.59 | 15.96 | 15.57 | 1055.01 | -2.44% |
| Seattle Genetics | SGEN | 51.97 | 106.00 | (81.68) | 260.81 | 10.16 | 11.94 | 1022.29 | 17.52% |
| Cepheid | CPHD | 170.63 | 37.69 | (22.50) | 57.42 | 12.48 | 17.48 | 1012.14 | 40.06% |
| Meridian Bioscience | VIVO | 148.27 | 7.64 | 32.76 | 66.73 | 21.55 | 20.37 | 822.95 | -5.48% |
| Savient Pharmaceuticals | SVNT | 2.96 | 53.68 | (90.85) | 108.18 | 13.61 | 14.45 | 790.86 | 6.17% |
| Pharmasset | VRUS | 13.29 | 44.58 | (55.59) | 42.27 | 20.7 | 26.80 | 752.28 | 29.47% |
| Martek Biosciences | MATK | 345.20 | 0.00 | 40.59 | 148.36 | 18.95 | 22.51 | 746.32 | 18.79% |
| PDL BioPharma | PDLI | 318.18 | 0.00 | 189.66 | 303.23 | 6.86 | 6.21 | 741.67 | -9.48% |
| Theravance | THRX | 24.37 | 88.90 | (85.30) | 155.39 | 13.07 | 13.32 | 706.40 | 1.91% |
| Alnylam Pharmaceuticals | ALNY | 100.53 | 98.99 | (47.59) | 281.40 | 17.62 | 17.02 | 705.05 | -3.41% |
| Luminex | LMNX | 120.64 | 20.47 | 17.73 | 99.35 | 14.93 | 16.81 | 697.16 | 12.59% |
| Halozyne Therapeutics | HALO | 13.67 | 35.01 | (58.36) | 67.46 | 5.87 | 7.99 | 679.84 | 36.12% |
| MannKind | MNKD | 0.00 | 180.19 | (220.10) | 32.49 | 8.76 | 6.56 | 669.24 | -25.11% |
| Facet Biotech | FACT | 46.10 | 151.28 | (141.67) | 300.84 | 17.55 | 26.99 | 663.36 | 53.79% |
| Exelixis | EXEL | 151.76 | 64.14 | (135.22) | 203.09 | 7.37 | 6.07 | 645.75 | -17.64% |
| Vivus | VVUS | 50.04 | 62.08 | (54.29) | 206.99 | 9.2 | 8.73 | 608.19 | -5.11% |
| Allos Therapeutics | ALTH | 3.59 | 32.31 | (73.55) | 158.20 | 6.58 | 7.43 | 604.43 | 12.92% |
| Momenta Pharmaceuticals | MNTA | 20.25 | 64.39 | (64.01) | 95.65 | 12.6 | 14.97 | 597.08 | 18.81% |
| Genoptix | GXDX | 184.38 | 1.22 | 30.63 | 140.99 | 35.53 | 35.49 | 595.10 | -0.11% |
| AMAG Pharmaceuticals | AMAG | 17.18 | 25.20 | (93.35) | 79.70 | 38.03 | 34.91 | 594.17 | -8.20% |
| Celera | CRA | 167.11 | 10.60 | (32.75) | 56.23 | 6.9 | 7.10 | 580.91 | 2.90% |
| Phase Forward | PFWD | 213.26 | 34.84 | 8.05 | 113.45 | 15.34 | 13.09 | 563.37 | -14.67% |
| Questcor Pharmaceuticals | QCOR | 88.32 | 9.65 | 26.63 | 75.71 | 4.75 | 8.23 | 531.74 | 73.26% |
| Simcere Pharmaceutical | SCR | 1849.97 | 73.72 | 119.50 | 458.15 | 9.24 | 8.51 | 527.79 | -7.90% |
| Affymetrix | AFFX | 327.09 | 73.67 | (23.91) | 279.02 | 5.84 | 7.34 | 518.84 | 25.68% |

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Company financial data, ranked by market cap

| COMPANY | TICKER | 2009 REVENUE (USD M) | 2009 R&D (USD M) | 2009 NET INCOME (USD M) | 2009 CASH & CASH EQUIVALENTS (USD M) | CLOSE PRICE 12/31/09 | CLOSE PRICE 3/31/10 | MARKET CAP (USD M) 3/31/10 | SHARE PRICE % CHANGE YTD |
|------------------------------|--------|----------------------|------------------|-------------------------|--------------------------------------|----------------------|---------------------|----------------------------|--------------------------|
| Emergent Biosolutions | EBS | 234.79 | 70.95 | 31.14 | 102.92 | 13.59 | 16.79 | 506.59 | 23.55% |
| Geron | GERN | 1.73 | 58.86 | (70.18) | 112.40 | 5.55 | 5.68 | 505.60 | 2.34% |
| Genomic Health | GHDX | 149.55 | 33.06 | (9.41) | 57.45 | 19.56 | 17.59 | 501.46 | -10.07% |
| Eurand NV | EURX | 109.89 | 23.57 | (5.90) | 39.94 | 12.9 | 11.28 | 500.60 | -12.56% |
| Protalix BioTherapeutics Inc | PLX | 0.39 | 14.64 | (32.08) | 81.27 | 6.62 | 6.56 | 498.10 | -0.91% |
| Targacept | TRGT | 25.06 | 40.95 | (39.40) | 111.07 | 20.9 | 19.66 | 490.79 | -5.93% |
| Quidel | QDEL | 164.28 | 12.71 | 32.88 | 93.00 | 13.78 | 14.54 | 460.80 | 5.52% |
| Cadence Pharmaceuticals | CADX | 0.00 | 19.44 | (45.49) | 82.01 | 9.67 | 9.13 | 460.19 | -5.58% |
| Enzon Pharmaceuticals | ENZN | 184.62 | 68.06 | 0.68 | 104.11 | 10.53 | 10.18 | 459.55 | -3.32% |
| Clinical Data | CLDA | 10.44 | 44.13 | (132.44) | 56.36 | 18.26 | 19.40 | 441.19 | 6.24% |
| Affymax | AFFY | 114.90 | 140.88 | (76.53) | 160.59 | 24.74 | 23.43 | 440.81 | -5.30% |
| Cardiome Pharma | CRME | 54.70 | 30.50 | (1.30) | 49.70 | 4.45 | 6.61 | 421.47 | 48.54% |
| ImmunoGen | IMGN | 27.99 | 45.90 | (31.97) | 71.49 | 7.86 | 8.09 | 412.87 | 2.93% |
| Medicines | MDCO | 404.24 | 116.48 | (76.23) | 176.19 | 8.34 | 7.84 | 412.67 | -6.00% |
| Micromet | MITI | 21.04 | 53.42 | (57.68) | 117.60 | 6.66 | 8.08 | 411.38 | 21.32% |
| Optimer Pharmaceuticals | OPTR | 0.89 | 23.33 | (42.09) | 38.19 | 11.27 | 12.28 | 405.71 | 8.96% |
| Zymogenetics | ZGEN | 136.97 | 120.44 | (42.98) | 174.13 | 6.39 | 5.73 | 394.21 | -10.33% |
| Opko Health Inc | OPK | 13.15 | | (30.11) | 42.66 | 1.83 | 1.98 | 393.49 | 8.20% |
| Sequenom | SQNM | 37.86 | 23.17 | (71.01) | 42.68 | 4.14 | 6.29 | 384.34 | 51.93% |
| Neogen | NEOG | 118.72 | 4.56 | 13.87 | 13.84 | 23.61 | 25.10 | 370.78 | 6.31% |
| Inspire Pharmaceuticals | ISPH | 92.16 | 53.45 | (39.98) | 106.62 | 5.52 | 6.24 | 353.62 | 13.04% |
| MAP Pharmaceuticals | MAPP | 54.17 | 47.78 | (9.00) | 65.78 | 9.53 | 15.89 | 327.38 | 66.74% |
| Medivation | MDVN | 69.25 | 46.60 | (54.75) | 278.24 | 37.65 | 10.49 | 315.82 | -72.14% |
| Jazz Pharmaceuticals | JAZZ | 128.45 | 45.69 | (6.84) | 15.60 | 7.88 | 10.90 | 315.28 | 38.32% |
| Santarus | SNTS | 172.49 | 15.03 | 32.12 | 93.94 | 4.62 | 5.38 | 310.96 | 16.45% |
| Vanda Pharmaceuticals | VNDA | 4.55 | 24.12 | (35.86) | 205.30 | 11.25 | 11.54 | 307.58 | 2.58% |
| Ariad Pharmaceuticals | ARIA | 8.30 | 39.95 | (80.01) | 40.36 | 2.28 | 3.40 | 293.62 | 49.12% |
| Rigel Pharmaceuticals | RIGL | 0.75 | 88.17 | (111.55) | 133.32 | 9.51 | 7.97 | 292.51 | -16.19% |
| Pozen | POZN | 32.19 | 23.80 | (6.86) | 46.71 | 5.98 | 9.58 | 285.27 | 60.20% |
| Nabi Biopharmaceuticals | NABI | 10.49 | 16.49 | (18.73) | 109.00 | 4.9 | 5.50 | 279.41 | 12.24% |
| QLT | QLTI | 42.11 | 28.59 | 99.43 | 188.11 | 4.96 | 5.10 | 278.56 | 2.82% |
| OraSure Technologies | OSUR | 77.03 | 14.26 | (7.81) | 79.67 | 5.08 | 5.93 | 277.69 | 16.73% |
| Ardea Biosciences | RDEA | 22.94 | 42.92 | (30.87) | 50.89 | 14 | 18.26 | 274.70 | 30.43% |
| 3S Bio | SSRX | 46.40 | 2.70 | 13.20 | 108.50 | 13.69 | 12.38 | 266.42 | -9.57% |
| Pain Therapeutics | PTIE | 20.56 | 26.98 | (3.47) | 175.76 | 5.36 | 6.27 | 264.04 | 16.98% |
| Albany Molecular Research | AMRI | 196.42 | 14.76 | (16.70) | 111.06 | 9.08 | 8.35 | 262.94 | -8.04% |
| Kendle International | KNDL | 551.91 | 0.00 | 15.24 | 52.10 | 18.31 | 17.48 | 259.86 | -4.53% |
| Sinovac Biotech | SVA | 84.20 | 4.41 | 30.41 | 32.89 | 6.33 | 5.91 | 253.43 | -6.64% |
| XenoPort | XNPT | 34.27 | 68.86 | (66.33) | 143.67 | 18.55 | 9.26 | 252.89 | -50.08% |

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Company financial data, ranked by market cap

| COMPANY | TICKER | 2009 REVENUE (USD M) | 2009 R&D (USD M) | 2009 NET INCOME (USD M) | 2009 CASH & CASH EQUIVALENTS (USD M) | CLOSE PRICE 12/31/09 | CLOSE PRICE 3/31/10 | MARKET CAP (USD M) 3/31/10 | SHARE PRICE % CHANGE YTD |
|---------------------------------|--------|----------------------|------------------|-------------------------|--------------------------------------|----------------------|---------------------|----------------------------|--------------------------|
| ArQule | ARQL | 25.20 | 52.58 | (36.14) | 154.68 | 3.69 | 5.72 | 252.56 | 55.01% |
| Biocryst Pharmaceuticals | BCRX | 74.59 | 90.13 | (13.45) | 68.96 | 6.46 | 6.57 | 251.83 | 1.70% |
| Maxygen | MAXY | 36.38 | 33.86 | (32.40) | 159.53 | 6.09 | 6.57 | 249.88 | 7.88% |
| Immunomedics | IMMU | 30.02 | 21.49 | 2.27 | 27.39 | 3.21 | 3.32 | 249.46 | 3.43% |
| Hi-Tech Pharmacal | HITK | 108.65 | 7.43 | 9.82 | 17.89 | 28.05 | 22.14 | 247.10 | -21.07% |
| DURECT | DRRX | 24.29 | 34.51 | (30.29) | 41.12 | 2.47 | 3.01 | 246.66 | 21.86% |
| BioMimetic Therapeutics | BMTI | 1.57 | 16.32 | (21.16) | 68.54 | 11.93 | 13.15 | 246.02 | 10.23% |
| Osiris Therapeutics | OSIR | 44.53 | 62.06 | 14.57 | 100.72 | 7.14 | 7.40 | 242.05 | 3.64% |
| NPS Pharmaceuticals | NPSP | 84.15 | 26.40 | (17.86) | 74.93 | 3.4 | 5.04 | 240.41 | 48.24% |
| RTI Biologics Inc | RTIX | 164.53 | 8.48 | 5.86 | 17.38 | 3.84 | 4.33 | 234.91 | 12.76% |
| SIGA Technologies | SIGA | 13.81 | 12.29 | (17.62) | 19.50 | 5.8 | 6.63 | 234.60 | 14.31% |
| Arena Pharmaceuticals | ARNA | 10.39 | 87.04 | (153.20) | 115.45 | 3.55 | 3.12 | 231.49 | -12.11% |
| Dyax | DYAX | 21.64 | 42.69 | (62.42) | 52.40 | 3.39 | 3.41 | 226.60 | 0.59% |
| Enzo Biochem | ENZ | 89.57 | 0.00 | (23.56) | 50.24 | 5.38 | 6.02 | 225.64 | 11.90% |
| Sangamo Biosciences | SGMO | 22.19 | 29.63 | (18.59) | 84.94 | 5.92 | 5.42 | 222.58 | -8.45% |
| Cumberland Pharmaceu- ticals | CPIX | 43.54 | 4.99 | 3.09 | 78.70 | 13.59 | 10.53 | 211.97 | n/a |
| Flamel Technologies SA | FLML | 42.12 | 37.50 | (11.44) | 37.10 | 7.4 | 8.57 | 206.13 | 15.81% |
| Lexicon Pharmaceuticals | LXRX | 10.70 | 85.30 | (82.78) | 162.51 | 1.7 | 1.49 | 204.62 | -12.35% |
| Orexigen Therapeutics | OREX | 0.09 | 48.75 | (66.56) | 92.16 | 7.44 | 5.89 | 204.15 | -20.83% |
| Ligand Pharmaceuticals | LGND | 38.94 | 39.87 | (1.95) | 53.23 | 2.17 | 1.74 | 197.13 | -19.82% |
| Curis | CRIS | 8.59 | 12.25 | (9.82) | 25.25 | 3.25 | 3.07 | 195.42 | -5.54% |
| Clariant | CLRT | 91.60 | 1.65 | (6.05) | 10.90 | 2.65 | 2.62 | 190.81 | -1.13% |
| Caliper Life Sciences | CALP | 130.41 | 19.03 | (8.23) | 38.05 | 2.54 | 3.91 | 189.37 | 53.94% |
| Novavax | NVAX | 0.33 | 14.73 | (38.37) | 42.95 | 2.66 | 2.31 | 188.19 | -13.16% |
| Cypress Bioscience | CYPB | 27.33 | 6.24 | (28.25) | 141.67 | 5.77 | 4.89 | 185.74 | -15.25% |
| Supergen | SUPG | 41.25 | 28.59 | 4.74 | 97.20 | 2.62 | 3.20 | 184.20 | 22.14% |
| CryoLife | CRY | 111.69 | 5.54 | 8.68 | 30.12 | 6.42 | 6.47 | 182.76 | 0.78% |
| Depomed | DEPO | 57.73 | 28.19 | (22.01) | 69.74 | 3.35 | 3.55 | 181.81 | 5.97% |
| Avanir Pharmaceuticals | AVNR | 4.18 | 14.41 | (22.00) | 25.12 | 1.9 | 2.32 | 181.49 | 22.11% |
| Cell Therapeutics | CTIC | 0.08 | 43.87 | (95.40) | 37.81 | 1.14 | 0.54 | 177.93 | -52.57% |
| Somaxon Pharmaceuticals | SOMX | 0.00 | 5.07 | (14.44) | 5.17 | 1.08 | 8.66 | 172.53 | 701.85% |
| Accelrys | ACCL | 80.98 | 15.05 | 0.09 | 61.51 | 5.73 | 6.16 | 170.32 | 7.50% |
| BioSpecifics | BSTC | 3.16 | 0.49 | (1.96) | 8.50 | 29.35 | 27.75 | 166.78 | -5.45% |
| Progenics Pharmaceuticals | PGNX | 48.95 | 50.73 | (30.61) | 92.40 | 4.44 | 5.33 | 164.07 | 20.05% |
| Sciclone Pharmaceuticals | SCLN | 72.41 | 17.53 | 11.95 | 31.33 | 2.33 | 3.53 | 163.16 | 51.50% |
| Pharmacyclics | PCYC | 0.00 | 13.95 | (23.45) | 14.53 | 3.14 | 6.24 | 162.55 | 98.73% |
| Idenix Pharmaceuticals | IDIX | 12.62 | 51.31 | (53.22) | 46.52 | 2.15 | 2.82 | 159.57 | 31.16% |
| Infinity Pharmaceuticals Inc | INFI | 49.54 | 77.90 | (32.51) | 130.05 | 6.18 | 6.10 | 159.41 | -1.29% |
| Cytokinetics | CYTK | 81.54 | 43.84 | 24.54 | 96.83 | 2.91 | 3.20 | 158.22 | 9.97% |

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Company financial data, ranked by market cap

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|------------------------------------|--------|----------------------|------------------|-------------------------|--------------------------------------|----------------------|---------------------|----------------------------|--------------------------|
| Oncolytics Biotech | ONCY | 0.00 | 11.61 | (16.23) | 32.45 | 2.61 | 3.13 | 154.84 | 19.92% |
| Symyx Technologies | SMMX | 150.45 | 60.76 | (1.14) | 81.78 | 5.5 | 4.49 | 151.75 | -18.36% |
| Peregrine Pharmaceuticals | PPHM | 18.15 | 18.42 | (16.52) | 10.02 | 2.96 | 3.08 | 151.38 | 4.05% |
| Spectrum Pharmaceuticals | SPPI | 38.03 | 26.19 | (19.05) | 113.34 | 4.44 | 4.61 | 149.97 | 3.83% |
| Synta Pharmaceuticals | SNTA | 144.25 | 32.51 | 79.09 | 44.16 | 5.06 | 4.31 | 146.20 | -14.82% |
| Idera Pharmaceuticals Inc | IDRA | 34.52 | 18.57 | 7.55 | 31.74 | 5.17 | 6.21 | 145.56 | 20.12% |
| Insmed | INSM | 10.37 | 9.21 | 118.35 | 122.18 | 0.77 | 1.17 | 143.32 | 51.95% |
| Corcept Therapeutics | CORT | 0.03 | 9.14 | (20.17) | 23.87 | 2.78 | 2.85 | 141.82 | 2.52% |
| Compugen | CGEN | 0.25 | 6.23 | (3.83) | 15.14 | 4.85 | 4.90 | 139.64 | 1.03% |
| Exact Sciences | EXAS | 4.76 | 5.37 | (9.13) | 24.33 | 3.39 | 4.45 | 136.90 | 31.27% |
| Ista Pharmaceuticals | ISTA | 110.65 | 29.73 | (57.75) | 53.70 | 4.56 | 4.07 | 134.66 | -10.75% |
| Vical | VICL | 12.69 | 22.85 | (28.56) | 44.26 | 3.29 | 3.33 | 134.44 | 1.22% |
| Cytori Therapeutics | CYTX | 14.73 | 10.98 | (23.22) | 12.85 | 6.1 | 4.56 | 133.67 | -25.25% |
| Array BioPharma | ARRY | 24.98 | 89.56 | (127.82) | 40.20 | 2.81 | 2.74 | 131.73 | -2.49% |
| Keryx Biopharmaceuticals | KERX | 25.19 | 30.19 | 10.49 | 33.93 | 2.5 | 2.74 | 131.06 | 9.60% |
| Tongjitang Chinese Medicines | TCM | 480.74 | 11.03 | (3.79) | 289.07 | 3.8 | 3.78 | 127.90 | -0.53% |
| Verenium Corp | VRNM | 65.91 | 49.13 | (21.89) | 32.06 | 4.5 | 5.06 | 126.80 | 12.44% |
| Repligen Corp | RGEN | 29.36 | 12.72 | 5.75 | 48.83 | 4.11 | 4.06 | 124.61 | -1.22% |
| Ziopharm Oncology | ZIOP | 0.00 | 7.38 | (7.65) | 48.84 | 2.96 | 5.08 | 122.33 | 71.62% |
| GTx | GTXI | 14.73 | 27.91 | (46.26) | 49.04 | 4.2 | 3.35 | 121.98 | -20.24% |
| Rexahn | RNN | 0.08 | 3.25 | (6.39) | 7.37 | 0.68 | 1.62 | 116.51 | 138.24% |
| Harvard Bioscience | HBIO | 85.77 | 4.50 | 7.23 | 16.59 | 3.57 | 3.87 | 115.33 | 8.40% |
| OncoGenex Pharmaceuticals Inc | OGXI | 25.54 | 24.16 | (5.48) | 64.57 | 22.28 | 20.53 | 113.90 | -7.85% |
| Trinity Biotech | TRIB | 125.91 | 7.34 | 12.92 | 6.08 | 4.04 | 5.45 | 113.81 | 34.90% |
| StemCells | STEM | 0.99 | 15.84 | (27.03) | 38.82 | 1.26 | 1.16 | 110.83 | -7.94% |
| Myriad Pharmaceuticals | MYRX | 5.46 | 54.61 | (58.14) | 169.10 | 5.03 | 4.52 | 110.79 | n/a |
| Penwest Pharmaceuticals | PPCO | 23.81 | 15.93 | (1.50) | 11.49 | 2.59 | 3.45 | 109.25 | 33.20% |
| Cytrx | CYTR | 9.50 | 7.23 | (4.80) | 32.64 | 1.12 | 1.11 | 107.64 | -0.89% |
| Chelsea Therapeutics International | CHTP | 0.00 | 23.99 | (25.77) | 33.74 | 2.7 | 3.55 | 106.89 | 31.48% |
| Achillon Pharmaceuticals | ACHN | 0.00 | 18.41 | (25.13) | 9.71 | 3.11 | 2.77 | 106.70 | -10.93% |
| Transcept Pharmaceuticals | TSPT | 5.21 | 9.01 | (21.80) | 88.90 | 6.8 | 7.97 | 106.56 | 17.21% |
| Nanosphere | NSPH | 2.21 | 19.26 | (33.95) | 76.69 | 6.44 | 4.79 | 106.48 | -25.62% |
| Nymox Pharmaceutical | NYMX | 0.42 | 2.22 | (5.13) | 0.67 | 4.56 | 3.48 | 103.53 | -23.68% |
| Biodel | BIOD | 0.00 | 32.23 | (43.27) | 39.55 | 4.34 | 4.27 | 101.25 | -1.61% |
| AVI BioPharma | AVII | 17.59 | 22.68 | (25.16) | 48.45 | 1.46 | 1.18 | 100.82 | -19.18% |
| Senomyx | SNMX | 15.51 | 29.01 | (26.17) | 31.07 | 3.77 | 3.28 | 100.44 | -13.13% |
| Neurocrine Biosciences | NBIX | 2.95 | 49.30 | (51.04) | 53.46 | 2.72 | 2.55 | 98.62 | -6.25% |

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|------------------------------------|--------|----------------------|------------------|-------------------------|--------------------------------------|----------------------|---------------------|----------------------------|--------------------------|
| Celldex Therapeutics | CLDX | 15.18 | 26.17 | (36.53) | 82.45 | 4.67 | 6.14 | 97.14 | 31.48% |
| NeurogesX | NGSX | 2.01 | 11.99 | (21.87) | 50.56 | 7.71 | 9.40 | 94.00 | 21.92% |
| Angiotech Pharmaceuticals | ANPI | 279.68 | 23.70 | (22.87) | 57.32 | 1.24 | 1.10 | 93.64 | -11.29% |
| Antares Pharma | AIS | 8.31 | 5.12 | (10.29) | 13.56 | 1.14 | 1.37 | 93.23 | 20.18% |
| Cerus | CERS | 17.98 | 8.49 | (24.14) | 19.93 | 1.99 | 2.79 | 90.95 | 40.20% |
| Medicynova | MNOV | 0.00 | 10.87 | (20.37) | 43.50 | 7.04 | 7.51 | 90.01 | 6.68% |
| Alexza Pharmaceuticals | ALXA | 9.51 | 42.51 | (103.64) | 19.92 | 2.4 | 2.69 | 88.12 | 11.88% |
| Adolor Corp | ADLR | 37.36 | 40.27 | (47.91) | 83.21 | 1.46 | 1.8 | 83.43 | 23.29% |
| Labopharm | DDSS | 22.29 | 15.29 | (34.46) | 23.76 | 2.08 | 1.45 | 83.22 | -30.29% |
| XOMA | XOMA | 98.43 | 45.30 | 0.55 | 23.91 | 0.7 | 0.57 | 81.28 | -18.41% |
| Anika Therapeutics | ANIK | 40.14 | 6.06 | 3.69 | 24.43 | 7.63 | 7.11 | 80.95 | -6.79% |
| CEL-SCI | CVM | 0.08 | 7.63 | (40.91) | 36.04 | 0.9 | 0.65 | 80.57 | -27.78% |
| Cornerstone Therapeutics | CRTX | 109.56 | 7.84 | 10.20 | 18.85 | 6.1 | 6.35 | 79.37 | 4.10% |
| Javelin Pharmaceuticals | JAV | 3.82 | 18.31 | (37.58) | 0.77 | 1.3 | 1.29 | 78.20 | -0.77% |
| Cardiovascular Systems | CSII | 54.46 | 14.68 | (31.90) | 33.41 | 4.59 | 5.31 | 78.00 | 15.69% |
| Trubion Pharmaceuticals | TRBN | 18.00 | 23.77 | (29.18) | 51.34 | 3.85 | 4.25 | 76.00 | 10.39% |
| SeraCare Life Sciences Inc | SRLS | 44.43 | 0.96 | (15.38) | 8.20 | 3.85 | 4.00 | 74.31 | 3.90% |
| BioDelivery Sciences International | BDSI | 62.81 | 11.05 | 33.05 | 23.87 | 3.93 | 3.83 | 73.72 | -2.54% |
| Generex Biotechnology | GNBT | 1.12 | 0.00 | (45.81) | 14.19 | 0.53 | 0.54 | 73.01 | 1.64% |
| Anadys Pharmaceuticals | ANDS | 0.00 | 35.08 | (27.28) | 20.49 | 2.11 | 2.53 | 72.94 | 19.91% |
| AspenBio Pharma | APPY | 0.51 | 8.71 | (15.52) | 13.88 | 1.74 | 2.28 | 72.27 | 31.03% |
| Amicus Therapeutics | FOLD | 64.36 | 45.88 | (6.57) | 78.22 | 3.97 | 3.19 | 72.23 | -19.65% |
| Psivida | PSDV | 12.16 | 8.01 | (2.51) | 6.90 | 3.59 | 3.94 | 71.95 | 9.75% |
| Osteotech | OSTE | 96.68 | 6.80 | (4.02) | 10.71 | 3.2 | 3.92 | 70.27 | 22.50% |
| Neuralstem | CUR | 0.00 | 3.94 | (10.36) | 2.31 | 1.79 | 2.05 | 69.76 | 14.53% |
| GenVec | GNVC | 13.86 | 18.68 | (18.36) | 10.96 | 1.2 | 0.78 | 68.97 | -35.00% |
| Oncothyreon Inc | ONTY | 40.00 | 9.32 | 7.13 | 19.17 | 5.39 | 3.45 | 67.25 | -35.99% |
| YM Biosciences | YMI | 4.86 | 0.00 | (10.39) | 36.40 | 1.35 | 1.18 | 65.89 | -12.59% |
| Inhibitex | INHX | 1.15 | 11.17 | (17.59) | 37.92 | 0.92 | 1.51 | 65.70 | 64.13% |
| Transition Therapeutics | TTHI | 2.18 | 15.27 | (18.04) | 39.50 | 3.6 | 2.82 | 65.48 | -21.67% |
| RXi Pharmaceuticals Corp | RXII | 0.00 | 8.89 | (18.39) | 5.68 | 4.58 | 4.56 | 65.29 | -0.44% |
| Entremed | ENMD | 5.28 | 9.64 | (8.22) | 6.37 | 0.8 | 0.68 | 59.67 | -15.00% |
| Athersys | ATHX | 2.16 | 11.91 | (15.37) | 21.30 | 4.13 | 3.10 | 58.68 | -24.94% |
| Inovio Biomed | INO | 9.12 | 9.41 | (24.41) | 40.69 | 1.14 | 1.32 | 58.14 | 15.79% |
| Acadia Pharmaceuticals | ACAD | 6.40 | 41.58 | (45.15) | 47.06 | 1.32 | 1.51 | 57.88 | 14.39% |
| Columbia Laboratories | CBRX | 8.55 | 14.52 | (5.44) | 14.76 | 1.08 | 1.07 | 57.45 | -0.93% |

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Company financial data, ranked by market cap

| COMPANY | TICKER | 2009 REVENUE (USD M) | 2009 R&D (USD M) | 2009 NET INCOME (USD M) | 2009 CASH & CASH EQUIVALENTS (USD M) | CLOSE PRICE 12/31/09 | CLOSE PRICE 3/31/10 | MARKET CAP (USD M) 3/31/10 | SHARE PRICE % CHANGE YTD |
|----------------------------|--------|----------------------|------------------|-------------------------|--------------------------------------|----------------------|---------------------|----------------------------|--------------------------|
| Hemisphere Biopharma | HEB | 0.11 | 7.00 | (13.44) | 58.07 | 0.56 | 0.74 | 57.28 | 32.14% |
| Oxigene | OXGN | 0.00 | 21.54 | (35.11) | 13.93 | 1.14 | 1.23 | 56.76 | 7.89% |
| Orchid Cellmark | ORCH | 59.06 | 0.89 | (1.54) | 8.60 | 1.71 | 1.88 | 56.34 | 9.94% |
| Sucampo Pharmaceuticals | SCMP | 67.35 | 25.28 | (0.76) | 99.15 | 4.04 | 3.57 | 55.88 | -11.63% |
| Theragenics | TGX | 78.33 | 0.71 | 3.08 | 45.33 | 1.34 | 1.66 | 55.19 | 23.88% |
| Trimeris | TRMS | 15.18 | 3.02 | 12.30 | 48.44 | 2.62 | 2.49 | 55.08 | -4.96% |
| Discovery Laboratories | DSCO | 0.00 | 21.27 | (30.24) | 15.74 | 0.63 | 0.52 | 52.25 | -17.46% |
| Dynavax Technologies | DVAX | 40.32 | 37.05 | (30.57) | 36.72 | 1.42 | 1.30 | 51.90 | -8.45% |
| Helicos BioSciences | HLCS | 0.81 | 24.62 | (45.65) | 19.71 | 1.03 | 0.79 | 51.00 | -23.30% |
| Cleveland BioLabs | CBLI | 14.35 | 14.33 | (12.83) | 0.96 | 3.31 | 3.56 | 49.89 | 7.55% |
| BioSante Pharmaceuticals | BPAX | 1.26 | 13.68 | (47.53) | 29.86 | 1.45 | 1.79 | 49.10 | 23.45% |
| Antigenics | AGEN | 3.33 | 15.64 | (30.32) | 30.07 | 0.64 | 0.73 | 48.53 | 13.55% |
| Matrixx Initiatives | MTXX | 111.63 | 3.24 | 13.86 | 40.02 | 4.23 | 5.07 | 47.95 | 19.86% |
| NovaBay Pharmaceuticals | NBY | 15.68 | 7.34 | 2.70 | 11.29 | 2.06 | 2.20 | 47.62 | 6.80% |
| Aastrom Biosciences | ASTM | 0.18 | 11.29 | (15.95) | 17.00 | 2.48 | 1.65 | 46.63 | -33.47% |
| Telik | TELK | 0.00 | 17.57 | (23.69) | 39.73 | 0.78 | 0.83 | 44.37 | 6.60% |
| DUSA Pharmaceuticals | DUSA | 29.81 | 4.78 | (2.51) | 16.67 | 1.55 | 1.83 | 44.08 | 18.06% |
| Cyclacel Pharmaceuticals | CYCC | 0.91 | 9.77 | (19.57) | 11.49 | 1.04 | 2.15 | 43.93 | 106.73% |
| Aeterna Zentaris | AEZS | 63.20 | 44.20 | (24.70) | 38.10 | 0.81 | 0.79 | 43.56 | -2.47% |
| Heska | HSKA | 75.68 | 1.72 | 2.24 | 5.40 | 0.53 | 0.82 | 42.49 | 54.72% |
| CombinatoRx | CRXX | 17.27 | 25.07 | 15.39 | 23.33 | 0.83 | 1.19 | 41.76 | 43.37% |
| Adeona Pharmaceuticals Inc | AEN | 0.10 | 2.99 | (3.73) | 2.72 | 0.56 | 1.93 | 41.46 | 244.64% |
| PharmAthene | PIP | 27.55 | 30.22 | (32.28) | 5.81 | 1.96 | 1.45 | 41.22 | -26.02% |
| Amarin (ADR) | AMRN | #N/A N/A | 0.00 | #N/A N/A | #N/A N/A | 1.43 | 1.52 | 41.11 | 6.29% |
| Novogen (ADR) | NVGN | 10.26 | 18.79 | (18.93) | 32.34 | 2.46 | 2.00 | 40.72 | -18.70% |
| MDRNA Inc. | MRNA | 14.73 | 14.88 | (8.05) | 0.75 | 0.81 | 1.10 | 40.00 | 35.80% |
| Poniard Pharmaceuticals | PARD | 0.00 | 25.25 | (45.72) | 43.39 | 1.83 | 1.15 | 39.89 | -37.16% |
| CPEX Pharmaceuticals | CPEX | 18.66 | 9.12 | (3.04) | 13.70 | 11.02 | 15.91 | 39.82 | 44.37% |
| Oculus Innovative Sciences | OCLS | 5.39 | 6.25 | (17.66) | 1.92 | 1.83 | 2.12 | 39.67 | 15.85% |
| Thermogenesis | KOOL | 19.80 | 5.22 | (8.55) | 15.63 | 0.58 | 0.70 | 39.27 | 20.69% |
| NexMed | NEXM | 2.97 | 2.59 | (32.04) | 0.48 | 0.29 | 0.46 | 38.73 | 58.66% |
| Strategic Diagnostics | SDIX | 27.15 | 2.99 | (1.65) | 7.94 | 1.36 | 1.90 | 38.52 | 39.71% |
| CombiMatrix | CBMX | 4.89 | 5.17 | (17.64) | 5.44 | 6.4 | 5.05 | 38.23 | -21.09% |
| Marshall Edwards | MSHL | 0.23 | 7.78 | 11.18 | 19.07 | 7 | 5.05 | 37.10 | -27.86% |
| Raptor Pharmaceutical | RPTP | 0.00 | 6.57 | (9.22) | 3.70 | 1.83 | 1.88 | 35.40 | 2.73% |

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Company financial data, ranked by market cap

| COMPANY | TICKER | 2009 REVENUE (USD M) | 2009 R&D (USD M) | 2009 NET INCOME (USD M) | 2009 CASH & CASH EQUIVALENTS (USD M) | CLOSE PRICE 12/31/09 | CLOSE PRICE 3/31/10 | MARKET CAP (USD M) 3/31/10 | SHARE PRICE % CHANGE YTD |
|-----------------------------------|--------|----------------------|------------------|-------------------------|--------------------------------------|----------------------|---------------------|----------------------------|--------------------------|
| Gentium SpA | GENT | 1.39 | 3.51 | (4.53) | 1.39 | 2.25 | 2.29 | 34.25 | 1.78% |
| Icagen | ICGN | 9.63 | 14.21 | (12.77) | 18.15 | 0.45 | 0.72 | 33.84 | 60.00% |
| SCOLR Pharma | DDD | 0.94 | 3.72 | (6.70) | 1.18 | 0.48 | 0.82 | 33.73 | 70.83% |
| Molecular Insight Pharmaceuticals | MIPI | 5.50 | 29.39 | (66.48) | 63.98 | 2.25 | 1.31 | 32.73 | -41.78% |
| Bionovo | BNVI | 0.29 | 8.62 | (16.36) | 15.93 | 0.48 | 0.42 | 32.23 | -12.10% |
| AP Pharma | APPA | 1.26 | 10.35 | (10.03) | 7.59 | 1.26 | 1.02 | 31.56 | -19.05% |
| Arca Bio | ABIO | 0.00 | 10.01 | (9.14) | 7.76 | 3.26 | 5.45 | 31.12 | 67.18% |
| ReGeneRx Biopharmaceuticals | RGN | 0.00 | 4.17 | (6.49) | 4.36 | 0.55 | 0.57 | 30.56 | 3.64% |
| Sunesis Pharmaceuticals | SNSS | 3.76 | 15.07 | (67.79) | 4.26 | 1.07 | 0.88 | 30.11 | -18.21% |
| Rosetta Genomics | ROSG | 0.15 | 3.13 | 16.51 | 9.23 | 1.75 | 2.16 | 29.33 | 23.43% |
| Threshold Pharmaceuticals | THLD | 0.00 | 17.49 | (23.65) | 37.32 | 1.8 | 1.86 | 28.31 | 3.33% |
| Prana Biotech (ADR) | PRAN | 0.35 | 1.78 | (6.05) | 3.47 | 1.32 | 1.32 | 26.76 | 0.01% |
| MiddleBrook Pharmaceuticals | MBRK | 14.84 | 6.44 | (62.33) | 14.80 | 0.51 | 0.30 | 25.93 | -41.18% |
| Opexa Therapeutics | OPXA | 0.00 | 4.29 | (1.43) | 8.18 | 1.9 | 2.09 | 25.67 | 10.00% |
| OccuLogix Inc | TEAR | 0.87 | | (4.39) | 0.11 | 1.25 | 2.59 | 25.46 | 107.20% |
| Nile Therapeutics | NLTX | 0.00 | 4.47 | (7.87) | 3.18 | 1.21 | 0.98 | 24.43 | -19.01% |
| Interleukin Genetics | ILI | 1.08 | 2.43 | (10.55) | 0.91 | 0.86 | 0.75 | 23.98 | -12.79% |
| ARYx Therapeutics | ARYX | 0.00 | 21.04 | (33.17) | 7.76 | 3.21 | 0.87 | 23.81 | -72.90% |
| Palatin Technologies | PTN | 11.35 | 13.36 | (4.80) | 7.82 | 0.37 | 0.26 | 22.28 | -30.51% |
| Cardium Therapeutics | CXM | 0.44 | 0.00 | (11.68) | 3.36 | 0.68 | 0.44 | 20.67 | -35.22% |
| Omeros | OMER | 1.44 | 16.93 | (21.09) | 60.31 | 7.02 | 7.04 | 20.62 | n/a |
| Adventrx Pharmaceuticals | ANX | 0.30 | 6.79 | (11.33) | 8.67 | 0.35 | 0.22 | 19.66 | -37.77% |
| Cyanotech | CYAN | 13.95 | 0.21 | 1.14 | 0.98 | 5.29 | 3.35 | 17.57 | -36.67% |
| Response Genetics | RGDX | 0.00 | 0.56 | (1.72) | 7.10 | 1.26 | 1.42 | 17.38 | 12.71% |
| Harbor Biosciences | HRBR | 0.00 | 10.55 | (15.63) | 9.74 | 0.53 | 0.55 | 16.04 | 3.77% |
| Genetic Technologies (ADR) | GENE | 4.35 | 0.98 | (6.35) | 6.53 | 1.15 | 1.23 | 15.36 | 6.96% |
| Cytomedix | GTF | 2.07 | 0.00 | (3.44) | 2.16 | 0.41 | 0.41 | 14.00 | 0.49% |
| Neostem | NBS | 11.57 | 0.00 | (24.18) | 7.16 | 1.55 | 1.80 | 13.95 | 16.13% |
| Dara Biosciences | DARA | 0.00 | 0.00 | (3.34) | 3.17 | 0.44 | 0.44 | 13.25 | 0.00% |
| Pluristem Therapeutics Inc | PSTI | 0.00 | 3.14 | (6.64) | 2.34 | 1.16 | 1.11 | 13.05 | -4.32% |
| Catalyst Pharmaceutical | CPRX | 0.00 | 5.10 | (7.24) | 7.78 | 0.63 | 0.80 | 11.33 | 27.00% |
| Immucell | ICCC | 4.51 | 1.65 | (0.22) | 4.59 | 3.71 | 3.51 | 10.43 | -5.39% |
| Repros Therapeutics | RPRX | 0.00 | 19.06 | (27.23) | 1.89 | 0.8 | 0.68 | 10.24 | -15.63% |
| Senesco Technologies | SNT | 0.28 | 2.35 | (5.73) | 1.43 | 0.33 | 0.42 | 7.97 | 26.97% |
| Bioanalytical Systems | BASI | 31.78 | 0.70 | (5.46) | 0.52 | 1.04 | 1.29 | 6.34 | 24.04% |

Company financial data, ranked alphabetically

| COMPANY | TICKER | 2009 R&D (USD M) | 2009 NET INCOME (USD M) | 2009 CASH & EQUIVALENTS (USD M) | CLOSE PRICE 12/31/09 | CLOSE PRICE 3/31/10 | MARKET CAP (USD M) 3/31/10 | % CHANGE OF SHARE PRICE YTD |
|----------------------------|--------|------------------|-------------------------|---------------------------------|----------------------|---------------------|----------------------------|-----------------------------|
| 3S Bio | SSRX | 2.70 | 13.20 | 108.50 | 13.69 | 12.38 | 266.42 | -9.57% |
| Aastrom Biosciences | ASTM | 11.29 | (15.95) | 17.00 | 2.48 | 1.65 | 46.63 | -33.47% |
| Acadia Pharmaceuticals | ACAD | 41.58 | (45.15) | 47.06 | 1.32 | 1.51 | 57.88 | 14.39% |
| Accelrys | ACCL | 15.05 | 0.09 | 61.51 | 5.73 | 6.16 | 170.32 | 7.50% |
| Achillon Pharmaceuticals | ACHN | 18.41 | (25.13) | 9.71 | 3.11 | 2.77 | 106.70 | -10.93% |
| Acorda Therapeutics | ACOR | 34.61 | (83.94) | 272.39 | 25.2 | 34.2 | 1305.07 | 35.71% |
| Adeona Pharmaceuticals Inc | AEN | 2.99 | (3.73) | 2.72 | 0.56 | 1.93 | 41.46 | 244.64% |
| Adolor Corp | ADLR | 40.27 | (47.91) | 83.21 | 1.46 | 1.8 | 83.43 | 23.29% |
| Adventrx Pharmaceuticals | ANX | 6.79 | (11.33) | 8.67 | 0.35 | 0.22 | 19.66 | -37.77% |
| Aeterna Zentaris | AEZS | 44.20 | (24.70) | 38.10 | 0.81 | 0.79 | 43.56 | -2.47% |
| Affymax | AFFY | 140.88 | (76.53) | 160.59 | 24.74 | 23.43 | 440.81 | -5.30% |
| Affymetrix | AFFX | 73.67 | (23.91) | 279.02 | 5.84 | 7.34 | 518.84 | 25.68% |
| Albany Molecular Research | AMRI | 14.76 | (16.70) | 111.06 | 9.08 | 8.35 | 262.94 | -8.04% |
| Alexion Pharmaceuticals | ALXN | 78.47 | 295.17 | 176.22 | 48.82 | 54.37 | 4235.97 | 11.37% |
| Alexza Pharmaceuticals | ALXA | 42.51 | (103.64) | 19.92 | 2.4 | 2.69 | 88.12 | 11.88% |
| Alkermes | ALKS | 93.67 | (38.29) | 323.66 | 9.41 | 12.97 | 1225.69 | 37.83% |
| Allos Therapeutics | ALTH | 32.31 | (73.55) | 158.20 | 6.58 | 7.43 | 604.43 | 12.92% |
| Alnylam Pharmaceuticals | ALNY | 98.99 | (47.59) | 281.40 | 17.62 | 17.02 | 705.05 | -3.41% |
| AMAG Pharmaceuticals | AMAG | 25.20 | (93.35) | 79.70 | 38.03 | 34.91 | 594.17 | -8.20% |
| Amarin (ADR) | AMRN | 0.00 | #N/A N/A | #N/A N/A | 1.43 | 1.52 | 41.11 | 6.29% |
| Amgen | AMGN | 3053.00 | 4605.00 | 13442.00 | 56.57 | 59.84 | 61434.60 | 5.78% |
| Amicus Therapeutics | FOLD | 45.88 | (6.57) | 78.22 | 3.97 | 3.19 | 72.23 | -19.65% |
| Amylin Pharmaceuticals | AMLN | 250.32 | (186.26) | 667.77 | 14.19 | 22.49 | 3121.61 | 58.49% |
| Anadys Pharmaceuticals | ANDS | 35.08 | (27.28) | 20.49 | 2.11 | 2.53 | 72.94 | 19.91% |
| Angiotech Pharmaceuticals | ANPI | 23.70 | (22.87) | 57.32 | 1.24 | 1.10 | 93.64 | -11.29% |
| Anika Therapeutics | ANIK | 6.06 | 3.69 | 24.43 | 7.63 | 7.11 | 80.95 | -6.79% |
| Antares Pharma | AIS | 5.12 | (10.29) | 13.56 | 1.14 | 1.37 | 93.23 | 20.18% |
| Antigenics | AGEN | 15.64 | (30.32) | 30.07 | 0.64 | 0.73 | 48.53 | 13.55% |
| AP Pharma | APPA | 10.35 | (10.03) | 7.59 | 1.26 | 1.02 | 31.56 | -19.05% |
| APP Pharmaceuticals | ABII | 118.28 | (103.12) | 203.31 | 40.55 | 51.75 | 2073.67 | 27.62% |
| Arca Bio | ABIO | 10.01 | (9.14) | 7.76 | 3.26 | 5.45 | 31.12 | 67.18% |
| Ardea Biosciences | RDEA | 42.92 | (30.87) | 50.89 | 14 | 18.26 | 274.70 | 30.43% |
| Arena Pharmaceuticals | ARNA | 87.04 | (153.20) | 115.45 | 3.55 | 3.12 | 231.49 | -12.11% |
| Ariad Pharmaceuticals | ARIA | 39.95 | (80.01) | 40.36 | 2.28 | 3.40 | 293.62 | 49.12% |
| ArQule | ARQL | 52.58 | (36.14) | 154.68 | 3.69 | 5.72 | 252.56 | 55.01% |
| Array BioPharma | ARRY | 89.56 | (127.82) | 40.20 | 2.81 | 2.74 | 131.73 | -2.49% |
| ARYx Therapeutics | ARYX | 21.04 | (33.17) | 7.76 | 3.21 | 0.87 | 23.81 | -72.90% |
| AspenBio Pharma | APPY | 8.71 | (15.52) | 13.88 | 1.74 | 2.28 | 72.27 | 31.03% |
| Athersys | ATHX | 11.91 | (15.37) | 21.30 | 4.13 | 3.10 | 58.68 | -24.94% |
| Auxilium Pharmaceuticals | AUXL | 52.41 | (53.46) | 181.98 | 29.98 | 31.16 | 1322.84 | 3.94% |

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Company financial data, ranked alphabetically

| COMPANY | TICKER | 2009 R&D (USD M) | 2009 NET INCOME (USD M) | 2009 CASH & EQUIVALENTS (USD M) | CLOSE PRICE 12/31/09 | CLOSE PRICE 3/31/10 | MARKET CAP (USD M) 3/31/10 | % CHANGE OF SHARE PRICE YTD |
|------------------------------------|--------|------------------|-------------------------|---------------------------------|----------------------|---------------------|----------------------------|-----------------------------|
| Avanir Pharmaceuticals | AVNR | 14.41 | (22.00) | 25.12 | 1.9 | 2.32 | 181.49 | 22.11% |
| AVI BioPharma | AVII | 22.68 | (25.16) | 48.45 | 1.46 | 1.18 | 100.82 | -19.18% |
| Bioanalytical Systems | BASI | 0.70 | (5.46) | 0.52 | 1.04 | 1.29 | 6.34 | 24.04% |
| Biocryst Pharmaceuticals | BCRX | 90.13 | (13.45) | 68.96 | 6.46 | 6.57 | 251.83 | 1.70% |
| Biodel | BIOD | 32.23 | (43.27) | 39.55 | 4.34 | 4.27 | 101.25 | -1.61% |
| BioDelivery Sciences International | BDSI | 11.05 | 33.05 | 23.87 | 3.93 | 3.83 | 73.72 | -2.54% |
| Biogen Idec | BIIB | 1232.88 | 970.13 | 1263.72 | 53.5 | 57.39 | 16577.68 | 7.27% |
| Biomarin Pharmaceutical | BMRN | 104.77 | (0.49) | 300.68 | 18.81 | 23.37 | 2336.09 | 24.24% |
| BioMimetic Therapeutics | BMTI | 16.32 | (21.16) | 68.54 | 11.93 | 13.15 | 246.02 | 10.23% |
| Bionovo | BNVI | 8.62 | (16.36) | 15.93 | 0.48 | 0.42 | 32.23 | -12.10% |
| BioSante Pharmaceuticals | BPAX | 13.68 | (47.53) | 29.86 | 1.45 | 1.79 | 49.10 | 23.45% |
| BioSpecifics | BSTC | 0.49 | (1.96) | 8.50 | 29.35 | 27.75 | 166.78 | -5.45% |
| Biovail | BVF | 135.53 | 176.46 | 124.03 | 13.96 | 16.77 | 2653.28 | 20.13% |
| Bruker BioSciences | BRKR | 127.60 | 81.20 | 207.10 | 12.06 | 14.65 | 2403.60 | 21.48% |
| Cadence Pharmaceuticals | CADX | 19.44 | (45.49) | 82.01 | 9.67 | 9.13 | 460.19 | -5.58% |
| Caliper Life Sciences | CALP | 19.03 | (8.23) | 38.05 | 2.54 | 3.91 | 189.37 | 53.94% |
| Cardiome Pharma | CRME | 30.50 | (1.30) | 49.70 | 4.45 | 6.61 | 421.47 | 48.54% |
| Cardiovascular Systems | CSII | 14.68 | (31.90) | 33.41 | 4.59 | 5.31 | 78.00 | 15.69% |
| Cardium Therapeutics | CXM | 0.00 | (11.68) | 3.36 | 0.68 | 0.44 | 20.67 | -35.22% |
| Catalyst Pharmaceutical | CPRX | 5.10 | (7.24) | 7.78 | 0.63 | 0.80 | 11.33 | 27.00% |
| Celera | CRA | 10.60 | (32.75) | 56.23 | 6.9 | 7.10 | 580.91 | 2.90% |
| Celgene | CELG | 714.00 | 776.75 | 2996.75 | 55.68 | 61.96 | 28447.69 | 11.28% |
| Cell Therapeutics | CTIC | 43.87 | (95.40) | 37.81 | 1.14 | 0.54 | 177.93 | -52.57% |
| Celldex Therapeutics | CLDX | 26.17 | (36.53) | 82.45 | 4.67 | 6.14 | 97.14 | 31.48% |
| CEL-SCI | CVM | 7.63 | (40.91) | 36.04 | 0.9 | 0.65 | 80.57 | -27.78% |
| Cephalon | CEPH | 387.44 | 342.63 | 1647.64 | 62.42 | 67.78 | 5059.78 | 8.59% |
| Cepheid | CPHD | 37.69 | (22.50) | 57.42 | 12.48 | 17.48 | 1012.14 | 40.06% |
| Cerus | CERS | 8.49 | (24.14) | 19.93 | 1.99 | 2.79 | 90.95 | 40.20% |
| Charles River Laboratories | CRL | 0.00 | 114.44 | 182.57 | 33.69 | 39.31 | 2583.41 | 16.68% |
| Chelsea Therapeutics International | CHTP | 23.99 | (25.77) | 33.74 | 2.7 | 3.55 | 106.89 | 31.48% |
| Clariant | CLRT | 1.65 | (6.05) | 10.90 | 2.65 | 2.62 | 190.81 | -1.13% |
| Cleveland BioLabs | CBLI | 14.33 | (12.83) | 0.96 | 3.31 | 3.56 | 49.89 | 7.55% |
| Clinical Data | CLDA | 44.13 | (132.44) | 56.36 | 18.26 | 19.40 | 441.19 | 6.24% |
| Columbia Laboratories | CBRX | 14.52 | (5.44) | 14.76 | 1.08 | 1.07 | 57.45 | -0.93% |
| CombiMatrix | CBMX | 5.17 | (17.64) | 5.44 | 6.4 | 5.05 | 38.23 | -21.09% |
| CombinatoRx | CRXX | 25.07 | 15.39 | 23.33 | 0.83 | 1.19 | 41.76 | 43.37% |
| Compugen | CGEN | 6.23 | (3.83) | 15.14 | 4.85 | 4.90 | 139.64 | 1.03% |
| Corcept Therapeutics | CORT | 9.14 | (20.17) | 23.87 | 2.78 | 2.85 | 141.82 | 2.52% |

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Company financial data, ranked alphabetically

| COMPANY | TICKER | 2009 R&D (USD M) | 2009 NET INCOME (USD M) | 2009 CASH & EQUIVALENTS (USD M) | CLOSE PRICE 12/31/09 | CLOSE PRICE 3/31/10 | MARKET CAP (USD M) 3/31/10 | % CHANGE OF SHARE PRICE YTD |
|----------------------------|--------|------------------|-------------------------|---------------------------------|----------------------|---------------------|----------------------------|-----------------------------|
| Cornerstone Therapeutics | CRTX | 7.84 | 10.20 | 18.85 | 6.1 | 6.35 | 79.37 | 4.10% |
| Covance | CVD | 0.00 | 175.88 | 289.47 | 54.57 | 61.39 | 3889.24 | 12.50% |
| CPEX Pharmaceuticals | CPEX | 9.12 | (3.04) | 13.70 | 11.02 | 15.91 | 39.82 | 44.37% |
| CryoLife | CRY | 5.54 | 8.68 | 30.12 | 6.42 | 6.47 | 182.76 | 0.78% |
| Cubist Pharmaceuticals | CBST | 153.11 | 79.60 | 319.00 | 18.97 | 22.54 | 1297.11 | 18.82% |
| Cumberland Pharmaceuticals | CPIX | 4.99 | 3.09 | 78.70 | 13.59 | 10.53 | 211.97 | n/a |
| Curis | CRIS | 12.25 | (9.82) | 25.25 | 3.25 | 3.07 | 195.42 | -5.54% |
| Cyanotech | CYAN | 0.21 | 1.14 | 0.98 | 5.29 | 3.35 | 17.57 | -36.67% |
| Cyclacel Pharmaceuticals | CYCC | 9.77 | (19.57) | 11.49 | 1.04 | 2.15 | 43.93 | 106.73% |
| Cypress Bioscience | CYPB | 6.24 | (28.25) | 141.67 | 5.77 | 4.89 | 185.74 | -15.25% |
| Cytokinetics | CYTK | 43.84 | 24.54 | 96.83 | 2.91 | 3.20 | 158.22 | 9.97% |
| Cytomedix | GTF | 0.00 | (3.44) | 2.16 | 0.41 | 0.41 | 14.00 | 0.49% |
| Cytori Therapeutics | CYTX | 10.98 | (23.22) | 12.85 | 6.1 | 4.56 | 133.67 | -25.25% |
| Cytrx | CYTR | 7.23 | (4.80) | 32.64 | 1.12 | 1.11 | 107.64 | -0.89% |
| Dara Biosciences | DARA | 0.00 | (3.34) | 3.17 | 0.44 | 0.44 | 13.25 | 0.00% |
| Dendreon | DNDN | 71.53 | (220.16) | 576.95 | 26.28 | 36.47 | 3581.43 | 38.77% |
| Depomed | DEPO | 28.19 | (22.01) | 69.74 | 3.35 | 3.55 | 181.81 | 5.97% |
| Discovery Laboratories | DSCO | 21.27 | (30.24) | 15.74 | 0.63 | 0.52 | 52.25 | -17.46% |
| DURECT | DRRX | 34.51 | (30.29) | 41.12 | 2.47 | 3.01 | 246.66 | 21.86% |
| DUSA Pharmaceuticals | DUSA | 4.78 | (2.51) | 16.67 | 1.55 | 1.83 | 44.08 | 18.06% |
| Dyax | DYAX | 42.69 | (62.42) | 52.40 | 3.39 | 3.41 | 226.60 | 0.59% |
| Dynavax Technologies | DVAX | 37.05 | (30.57) | 36.72 | 1.42 | 1.30 | 51.90 | -8.45% |
| Elan (ADR) | ELN | 293.60 | (176.20) | 843.60 | 6.52 | 7.58 | 3727.84 | 16.26% |
| Emergent Biosolutions | EBS | 70.95 | 31.14 | 102.92 | 13.59 | 16.79 | 506.59 | 23.55% |
| Endo Pharmaceuticals | ENDP | 185.32 | 266.34 | 733.74 | 20.52 | 23.69 | 2781.23 | 15.45% |
| Entremed | ENMD | 9.64 | (8.22) | 6.37 | 0.8 | 0.68 | 59.67 | -15.00% |
| Enzo Biochem | ENZ | 0.00 | (23.56) | 50.24 | 5.38 | 6.02 | 225.64 | 11.90% |
| Enzon Pharmaceuticals | ENZN | 68.06 | 0.68 | 104.11 | 10.53 | 10.18 | 459.55 | -3.32% |
| Eurand NV | EURX | 23.57 | (5.90) | 39.94 | 12.9 | 11.28 | 500.60 | -12.56% |
| Exact Sciences | EXAS | 5.37 | (9.13) | 24.33 | 3.39 | 4.45 | 136.90 | 31.27% |
| Exelixis | EXEL | 64.14 | (135.22) | 203.09 | 7.37 | 6.07 | 645.75 | -17.64% |
| Facet Biotech | FACT | 151.28 | (141.67) | 300.84 | 17.55 | 26.99 | 663.36 | 53.79% |
| Flamel Technologies SA | FLML | 37.50 | (11.44) | 37.10 | 7.4 | 8.57 | 206.13 | 15.81% |
| Generex Biotechnology | GNBT | 0.00 | (45.81) | 14.19 | 0.53 | 0.54 | 73.01 | 1.64% |
| Genetic Technologies (ADR) | GENE | 0.98 | (6.35) | 6.53 | 1.15 | 1.23 | 15.36 | 6.96% |
| Genomic Health | GHDX | 33.06 | (9.41) | 57.45 | 19.56 | 17.59 | 501.46 | -10.07% |
| Genoptix | GXDX | 1.22 | 30.63 | 140.99 | 35.53 | 35.49 | 595.10 | -0.11% |
| Gen-Probe | GPRO | 105.30 | 91.78 | 485.61 | 42.92 | 50.00 | 2616.85 | 16.50% |
| Gentium SpA | GENT | 3.51 | (4.53) | 1.39 | 2.25 | 2.29 | 34.25 | 1.78% |

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Company financial data, ranked alphabetically

| COMPANY | TICKER | 2009 R&D (USD M) | 2009 NET INCOME (USD M) | 2009 CASH & EQUIVALENTS (USD M) | CLOSE PRICE 12/31/09 | CLOSE PRICE 3/31/10 | MARKET CAP (USD M) 3/31/10 | % CHANGE OF SHARE PRICE YTD |
|-------------------------------|--------|------------------|-------------------------|---------------------------------|----------------------|---------------------|----------------------------|-----------------------------|
| GenVec | GNVC | 18.68 | (18.36) | 10.96 | 1.2 | 0.78 | 68.97 | -35.00% |
| Genzyme | GENZ | 855.66 | 422.30 | 905.88 | 49.01 | 51.83 | 14064.23 | 5.75% |
| Geron | GERN | 58.86 | (70.18) | 112.40 | 5.55 | 5.68 | 505.60 | 2.34% |
| Gilead Sciences | GILD | 927.10 | 2635.76 | 1656.98 | 43.27 | 45.47 | 41116.70 | 5.08% |
| GTx | GTXI | 27.91 | (46.26) | 49.04 | 4.2 | 3.35 | 121.98 | -20.24% |
| Halozyne Therapeutics | HALO | 35.01 | (58.36) | 67.46 | 5.87 | 7.99 | 679.84 | 36.12% |
| Harvard Bioscience | HBIO | 4.50 | 7.23 | 16.59 | 3.57 | 3.87 | 115.33 | 8.40% |
| Helicos BioSciences | HLCS | 24.62 | (45.65) | 19.71 | 1.03 | 0.79 | 51.00 | -23.30% |
| Hemispherx Biopharma | HEB | 7.00 | (13.44) | 58.07 | 0.56 | 0.74 | 57.28 | 32.14% |
| Herbalife | HLF | 0.00 | 203.35 | 150.80 | 40.57 | 46.12 | 2836.38 | 13.68% |
| Heska | HSKA | 1.72 | 2.24 | 5.40 | 0.53 | 0.82 | 42.49 | 54.72% |
| Hi-Tech Pharmacal | HITK | 7.43 | 9.82 | 17.89 | 28.05 | 22.14 | 247.10 | -21.07% |
| Harbor Biosciences | HRBR | 10.55 | (15.63) | 9.74 | 0.53 | 0.55 | 16.04 | 3.77% |
| Hologic | HOLX | 94.33 | (2176.24) | 294.10 | 14.5 | 18.54 | 4752.45 | 27.86% |
| Human Genome Sciences | HGSI | 173.71 | 5.66 | 719.20 | 30.58 | 30.20 | 4099.53 | -1.24% |
| Icagen | ICGN | 14.21 | (12.77) | 18.15 | 0.45 | 0.72 | 33.84 | 60.00% |
| ICON (ADR) | ICLR | 0.00 | 94.30 | 194.03 | 21.73 | 26.41 | 1546.49 | 21.54% |
| Idenix Pharmaceuticals | IDIX | 51.31 | (53.22) | 46.52 | 2.15 | 2.82 | 159.57 | 31.16% |
| Idera Pharmaceuticals Inc | IDRA | 18.57 | 7.55 | 31.74 | 5.17 | 6.21 | 145.56 | 20.12% |
| Idexx Laboratories | IDXX | 65.12 | 122.23 | 106.73 | 53.45 | 57.55 | 3402.87 | 7.67% |
| Illumina | ILMN | 140.62 | 72.28 | 693.53 | 30.68 | 38.90 | 4828.99 | 26.79% |
| Immucell | ICCC | 1.65 | (0.22) | 4.59 | 3.71 | 3.51 | 10.43 | -5.39% |
| Immucor | BLUD | 10.70 | 76.18 | 136.46 | 20.24 | 22.39 | 1577.08 | 10.62% |
| ImmunoGen | IMGN | 45.90 | (31.97) | 71.49 | 7.86 | 8.09 | 412.87 | 2.93% |
| Immunomedics | IMMU | 21.49 | 2.27 | 27.39 | 3.21 | 3.32 | 249.46 | 3.43% |
| Incyte | INCY | 122.49 | (211.87) | 470.42 | 9.11 | 13.93 | 1355.95 | 52.91% |
| Infinity Pharmaceuticals Inc | INFI | 77.90 | (32.51) | 130.05 | 6.18 | 6.10 | 159.41 | -1.29% |
| Inhibitex | INHX | 11.17 | (17.59) | 37.92 | 0.92 | 1.51 | 65.70 | 64.13% |
| Inovio Biomed | INO | 9.41 | (24.41) | 40.69 | 1.14 | 1.32 | 58.14 | 15.79% |
| Insmed | INSM | 9.21 | 118.35 | 122.18 | 0.77 | 1.17 | 143.32 | 51.95% |
| Inspire Pharmaceuticals | ISPH | 53.45 | (39.98) | 106.62 | 5.52 | 6.24 | 353.62 | 13.04% |
| Interleukin Genetics | ILI | 2.43 | (10.55) | 0.91 | 0.86 | 0.75 | 23.98 | -12.79% |
| InterMune | ITMN | 89.82 | (116.02) | 86.95 | 13.04 | 44.57 | 1956.98 | 241.79% |
| Inverness Medical Innovations | IMA | 107.80 | 33.72 | 493.72 | 41.51 | 38.95 | 3062.48 | -6.17% |
| Isis Pharmaceuticals | ISIS | 129.67 | 155.07 | 574.31 | 11.11 | 10.93 | 1068.82 | -1.62% |
| Ista Pharmaceuticals | ISTA | 29.73 | (57.75) | 53.70 | 4.56 | 4.07 | 134.66 | -10.75% |

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Company financial data, ranked alphabetically

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|-----------------------------------|--------|------------------|-------------------------|---------------------------------|----------------------|---------------------|----------------------------|-----------------------------|
| Javelin Pharmaceuticals | JAV | 18.31 | (37.58) | 0.77 | 1.3 | 1.29 | 78.20 | -0.77% |
| Jazz Pharmaceuticals | JAZZ | 45.69 | (6.84) | 15.60 | 7.88 | 10.90 | 315.28 | 38.32% |
| Kendle International | KNDL | 0.00 | 15.24 | 52.10 | 18.31 | 17.48 | 259.86 | -4.53% |
| Keryx Biopharmaceuticals | KERX | 30.19 | 10.49 | 33.93 | 2.5 | 2.74 | 131.06 | 9.60% |
| Labopharm | DDSS | 15.29 | (34.46) | 23.76 | 2.08 | 1.45 | 83.22 | -30.29% |
| Lexicon Pharmaceuticals | LXRX | 85.30 | (82.78) | 162.51 | 1.7 | 1.49 | 204.62 | -12.35% |
| Life Technologies | LIFE | 286.34 | 144.59 | 607.35 | 52.22 | 52.27 | 9217.29 | 0.10% |
| Ligand Pharmaceuticals | LGND | 39.87 | (1.95) | 53.23 | 2.17 | 1.74 | 197.13 | -19.82% |
| Luminex | LMNX | 20.47 | 17.73 | 99.35 | 14.93 | 16.81 | 697.16 | 12.59% |
| MannKind | MNKD | 180.19 | (220.10) | 32.49 | 8.76 | 6.56 | 669.24 | -25.11% |
| MAP Pharmaceuticals | MAPP | 47.78 | (9.00) | 65.78 | 9.53 | 15.89 | 327.38 | 66.74% |
| Marshall Edwards | MSHL | 7.78 | 11.18 | 19.07 | 7 | 5.05 | 37.10 | -27.86% |
| Martek Biosciences | MATK | 0.00 | 40.59 | 148.36 | 18.95 | 22.51 | 746.32 | 18.79% |
| Matrixx Initiatives | MTXX | 3.24 | 13.86 | 40.02 | 4.23 | 5.07 | 47.95 | 19.86% |
| Maxygen | MAXY | 33.86 | (32.40) | 159.53 | 6.09 | 6.57 | 249.88 | 7.88% |
| MDRNA Inc. | MRNA | 14.88 | (8.05) | 0.75 | 0.81 | 1.10 | 40.00 | 35.80% |
| Medicines | MDCO | 116.48 | (76.23) | 176.19 | 8.34 | 7.84 | 412.67 | -6.00% |
| Medicinova | MNOV | 10.87 | (20.37) | 43.50 | 7.04 | 7.51 | 90.01 | 6.68% |
| Medivation | MDVN | 46.60 | (54.75) | 278.24 | 37.65 | 10.49 | 315.82 | -72.14% |
| Meridian Bioscience | VIVO | 7.64 | 32.76 | 66.73 | 21.55 | 20.37 | 822.95 | -5.48% |
| Micromet | MITI | 53.42 | (57.68) | 117.60 | 6.66 | 8.08 | 411.38 | 21.32% |
| MiddleBrook Pharmaceuticals | MBRK | 6.44 | (62.33) | 14.80 | 0.51 | 0.30 | 25.93 | -41.18% |
| Millipore | MIL | 57.94 | 177.00 | 168.33 | 72.35 | 105.60 | 5917.08 | 45.96% |
| Molecular Insight Pharmaceuticals | MIPI | 29.39 | (66.48) | 63.98 | 2.25 | 1.31 | 32.73 | -41.78% |
| Momenta Pharmaceuticals | MNTA | 64.39 | (64.01) | 95.65 | 12.6 | 14.97 | 597.08 | 18.81% |
| Myriad Genetics | MYGN | 17.91 | 84.62 | 316.86 | 26.09 | 24.05 | 2306.88 | -7.82% |
| Myriad Pharmaceuticals | MYRX | 54.61 | (58.14) | 169.10 | 5.03 | 4.52 | 110.79 | n/a |
| Nabi Biopharmaceuticals | NABI | 16.49 | (18.73) | 109.00 | 4.9 | 5.50 | 279.41 | 12.24% |
| Nanosphere | NSPH | 19.26 | (33.95) | 76.69 | 6.44 | 4.79 | 106.48 | -25.62% |
| Nektar Therapeutics | NKTR | 111.65 | (102.52) | 396.21 | 9.32 | 15.21 | 1407.02 | 63.20% |
| Neogen | NEOG | 4.56 | 13.87 | 13.84 | 23.61 | 25.10 | 370.78 | 6.31% |
| Neostem | NBS | 0.00 | (24.18) | 7.16 | 1.55 | 1.80 | 13.95 | 16.13% |
| Neuralstem | CUR | 3.94 | (10.36) | 2.31 | 1.79 | 2.05 | 69.76 | 14.53% |
| Neurocrine Biosciences | NBIX | 49.30 | (51.04) | 53.46 | 2.72 | 2.55 | 98.62 | -6.25% |
| NeurogesX | NGSX | 11.99 | (21.87) | 50.56 | 7.71 | 9.40 | 94.00 | 21.92% |
| NexMed | NEXM | 2.59 | (32.04) | 0.48 | 0.29 | 0.46 | 38.73 | 58.66% |
| Nile Therapeutics | NLTX | 4.47 | (7.87) | 3.18 | 1.21 | 0.98 | 24.43 | -19.01% |

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|------------------------------------|--------|------------------|-------------------------|---------------------------------|----------------------|---------------------|----------------------------|-----------------------------|
| NovaBay Pharmaceuticals | NBY | 7.34 | 2.70 | 11.29 | 2.06 | 2.20 | 47.62 | 6.80% |
| Novavax | NVAX | 14.73 | (38.37) | 42.95 | 2.66 | 2.31 | 188.19 | -13.16% |
| Novogen (ADR) | NVGN | 18.79 | (18.93) | 32.34 | 2.46 | 2.00 | 40.72 | -18.70% |
| NPS Pharmaceuticals | NPSP | 26.40 | (17.86) | 74.93 | 3.4 | 5.04 | 240.41 | 48.24% |
| Nymox Pharmaceutical | NYMX | 2.22 | (5.13) | 0.67 | 4.56 | 3.48 | 103.53 | -23.68% |
| OccuLogix Inc | TEAR | | (4.39) | 0.11 | 1.25 | 2.59 | 25.46 | 107.20% |
| Oculus Innovative Sciences | OCLS | 6.25 | (17.66) | 1.92 | 1.83 | 2.12 | 39.67 | 15.85% |
| Omeros | OMER | 16.93 | (21.09) | 60.31 | 7.02 | 7.04 | 20.62 | n/a |
| OncoGenex Pharmaceuticals Inc | OGXI | 24.16 | (5.48) | 64.57 | 22.28 | 20.53 | 113.90 | -7.85% |
| Oncolytics Biotech | ONCY | 11.61 | (16.23) | 32.45 | 2.61 | 3.13 | 154.84 | 19.92% |
| Oncothyreon Inc | ONTY | 9.32 | 7.13 | 19.17 | 5.39 | 3.45 | 67.25 | -35.99% |
| Onyx Pharmaceuticals | ONXX | 126.91 | 16.16 | 550.11 | 29.34 | 30.28 | 1717.36 | 3.20% |
| Opexa Therapeutics | OPXA | 4.29 | (1.43) | 8.18 | 1.9 | 2.09 | 25.67 | 10.00% |
| Opko Health Inc | OPK | | (30.11) | 42.66 | 1.83 | 1.98 | 393.49 | 8.20% |
| Optimer Pharmaceuticals | OPTR | 23.33 | (42.09) | 38.19 | 11.27 | 12.28 | 405.71 | 8.96% |
| OraSure Technologies | OSUR | 14.26 | (7.81) | 79.67 | 5.08 | 5.93 | 277.69 | 16.73% |
| Orchid Cellmark | ORCH | 0.89 | (1.54) | 8.60 | 1.71 | 1.88 | 56.34 | 9.94% |
| Orexigen Therapeutics | OREX | 48.75 | (66.56) | 92.16 | 7.44 | 5.89 | 204.15 | -20.83% |
| Orthologic | CAPS | 11.97 | 13.12 | 35.12 | 0.02 | 0.03 | 1.22 | 50.00% |
| OSI Pharmaceutical | OSIP | 152.56 | 75.93 | 469.59 | 31.06 | 59.55 | 3449.20 | 91.73% |
| Osiris Therapeutics | OSIR | 62.06 | 14.57 | 100.72 | 7.14 | 7.40 | 242.05 | 3.64% |
| Osteotech | OSTE | 6.80 | (4.02) | 10.71 | 3.2 | 3.92 | 70.27 | 22.50% |
| Oxigene | OXGN | 21.54 | (35.11) | 13.93 | 1.14 | 1.23 | 56.76 | 7.89% |
| Pain Therapeutics | PTIE | 26.98 | (3.47) | 175.76 | 5.36 | 6.27 | 264.04 | 16.98% |
| Palatin Technologies | PTN | 13.36 | (4.80) | 7.82 | 0.37 | 0.26 | 22.28 | -30.51% |
| Parexel International | PRXL | 0.00 | 39.31 | 96.35 | 14.1 | 23.31 | 1342.96 | 65.32% |
| PDL BioPharma | PDLI | 0.00 | 189.66 | 303.23 | 6.86 | 6.21 | 741.67 | -9.48% |
| Penwest Pharmaceuticals | PPCO | 15.93 | (1.50) | 11.49 | 2.59 | 3.45 | 109.25 | 33.20% |
| Peregrine Pharmaceuticals | PPHM | 18.42 | (16.52) | 10.02 | 2.96 | 3.08 | 151.38 | 4.05% |
| PerkinElmer | PKI | 0.00 | 85.60 | 179.71 | 20.59 | 23.90 | 2776.61 | 16.08% |
| Pharmaceutical Product Development | PPDI | 27.67 | 159.30 | 553.55 | 23.44 | 23.74 | 2798.42 | 1.28% |
| Pharmacyclics | PCYC | 13.95 | (23.45) | 14.53 | 3.14 | 6.24 | 162.55 | 98.73% |
| Pharmasset | VRUS | 44.58 | (55.59) | 42.27 | 20.7 | 26.80 | 752.28 | 29.47% |
| PharmAthene | PIP | 30.22 | (32.28) | 5.81 | 1.96 | 1.45 | 41.22 | -26.02% |
| Phase Forward | PFWD | 34.84 | 8.05 | 113.45 | 15.34 | 13.09 | 563.37 | -14.67% |

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|------------------------------|--------|------------------|-------------------------|---------------------------------|----------------------|---------------------|----------------------------|-----------------------------|
| Pluristem Therapeutics Inc | PSTI | 3.14 | (6.64) | 2.34 | 1.16 | 1.11 | 13.05 | -4.32% |
| Poniard Pharmaceuticals | PARD | 25.25 | (45.72) | 43.39 | 1.83 | 1.15 | 39.89 | -37.16% |
| Pozen | POZN | 23.80 | (6.86) | 46.71 | 5.98 | 9.58 | 285.27 | 60.20% |
| Prana Biotech (ADR) | PRAN | 1.78 | (6.05) | 3.47 | 1.32 | 1.32 | 26.76 | 0.01% |
| Progenics Pharmaceuticals | PGNX | 50.73 | (30.61) | 92.40 | 4.44 | 5.33 | 164.07 | 20.05% |
| Protalix BioTherapeutics Inc | PLX | 14.64 | (32.08) | 81.27 | 6.62 | 6.56 | 498.10 | -0.91% |
| Psivida | PSDV | 8.01 | (2.51) | 6.90 | 3.59 | 3.94 | 71.95 | 9.75% |
| Qiagen N.V. | QGEN | 105.10 | 137.77 | 865.56 | 22.33 | 22.99 | 4549.58 | 2.96% |
| QLT | QLTI | 28.59 | 99.43 | 188.11 | 4.96 | 5.10 | 278.56 | 2.82% |
| Quest Diagnostics | DGX | 0.00 | 729.11 | 534.26 | 60.38 | 58.29 | 10827.37 | -3.46% |
| Questcor Pharmaceuticals | QCOR | 9.65 | 26.63 | 75.71 | 4.75 | 8.23 | 531.74 | 73.26% |
| Quidel | QDEL | 12.71 | 32.88 | 93.00 | 13.78 | 14.54 | 460.80 | 5.52% |
| Raptor Pharmaceutical | RPTP | 6.57 | (9.22) | 3.70 | 1.83 | 1.88 | 35.40 | 2.73% |
| Regeneron Pharmaceuticals | REGN | 383.28 | (67.83) | 341.33 | 24.18 | 26.49 | 2059.07 | 9.55% |
| ReGeneRx Biopharmaceuticals | RGN | 4.17 | (6.49) | 4.36 | 0.55 | 0.57 | 30.56 | 3.64% |
| Repligen Corp | RGEN | 12.72 | 5.75 | 48.83 | 4.11 | 4.06 | 124.61 | -1.22% |
| Repros Therapeutics | RPRX | 19.06 | (27.23) | 1.89 | 0.8 | 0.68 | 10.24 | -15.63% |
| Response Genetics | RGDX | 0.56 | (1.72) | 7.10 | 1.26 | 1.42 | 17.38 | 12.71% |
| Rexahn | RNN | 3.25 | (6.39) | 7.37 | 0.68 | 1.62 | 116.51 | 138.24% |
| Rigel Pharmaceuticals | RIGL | 88.17 | (111.55) | 133.32 | 9.51 | 7.97 | 292.51 | -16.19% |
| Rosetta Genomics | ROSG | 3.13 | 16.51 | 9.23 | 1.75 | 2.16 | 29.33 | 23.43% |
| RTI Biologics Inc | RTIX | 8.48 | 5.86 | 17.38 | 3.84 | 4.33 | 234.91 | 12.76% |
| RXi Pharmaceuticals Corp | RXII | 8.89 | (18.39) | 5.68 | 4.58 | 4.56 | 65.29 | -0.44% |
| Salix Pharmaceuticals Ltd | SLXP | 84.03 | (43.62) | 192.51 | 25.39 | 37.25 | 1792.43 | 46.71% |
| Sangamo Biosciences | SGMO | 29.63 | (18.59) | 84.94 | 5.92 | 5.42 | 222.58 | -8.45% |
| Santarus | SNTS | 15.03 | 32.12 | 93.94 | 4.62 | 5.38 | 310.96 | 16.45% |
| Savient Pharmaceuticals | SVNT | 53.68 | (90.85) | 108.18 | 13.61 | 14.45 | 790.86 | 6.17% |
| Sciclone Pharmaceuticals | SCLN | 17.53 | 11.95 | 31.33 | 2.33 | 3.53 | 163.16 | 51.50% |
| SCOLR Pharma | DDD | 3.72 | (6.70) | 1.18 | 0.48 | 0.82 | 33.73 | 70.83% |
| Seattle Genetics | SGEN | 106.00 | (81.68) | 260.81 | 10.16 | 11.94 | 1022.29 | 17.52% |
| Senesco Technologies | SNT | 2.35 | (5.73) | 1.43 | 0.33 | 0.42 | 7.97 | 26.97% |
| Senomyx | SNMX | 29.01 | (26.17) | 31.07 | 3.77 | 3.28 | 100.44 | -13.13% |
| Sequenom | SQNM | 23.17 | (71.01) | 42.68 | 4.14 | 6.29 | 384.34 | 51.93% |
| SeraCare Life Sciences Inc | SRLS | 0.96 | (15.38) | 8.20 | 3.85 | 4.00 | 74.31 | 3.90% |
| Shire ADR | SHPGY | 638.30 | 491.60 | 532.00 | 58.7 | 66.01 | 12328.03 | 12.45% |
| SIGA Technologies | SIGA | 12.29 | (17.62) | 19.50 | 5.8 | 6.63 | 234.60 | 14.31% |
| Simcere Pharmaceutical | SCR | 73.72 | 119.50 | 458.15 | 9.24 | 8.51 | 527.79 | -7.90% |

(continued) »

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Company financial data, ranked alphabetically

| COMPANY | TICKER | 2009 R&D (USD M) | 2009 NET INCOME (USD M) | 2009 CASH & EQUIVALENTS (USD M) | CLOSE PRICE 12/31/09 | CLOSE PRICE 3/31/10 | MARKET CAP (USD M) 3/31/10 | % CHANGE OF SHARE PRICE YTD |
|------------------------------|--------|------------------|-------------------------|---------------------------------|----------------------|---------------------|----------------------------|-----------------------------|
| Sinovac Biotech | SVA | 4.41 | 30.41 | 32.89 | 6.33 | 5.91 | 253.43 | -6.64% |
| Somaxon Pharmaceuticals | SOMX | 5.07 | (14.44) | 5.17 | 1.08 | 8.66 | 172.53 | 701.85% |
| Spectrum Pharmaceuticals | SPPI | 26.19 | (19.05) | 113.34 | 4.44 | 4.61 | 149.97 | 3.83% |
| StemCells | STEM | 15.84 | (27.03) | 38.82 | 1.26 | 1.16 | 110.83 | -7.94% |
| Strategic Diagnostics | SDIX | 2.99 | (1.65) | 7.94 | 1.36 | 1.90 | 38.52 | 39.71% |
| Sucampo Pharmaceuticals | SCMP | 25.28 | (0.76) | 99.15 | 4.04 | 3.57 | 55.88 | -11.63% |
| Sunesis Pharmaceuticals | SNSS | 15.07 | (67.79) | 4.26 | 1.07 | 0.88 | 30.11 | -18.21% |
| Supergen | SUPG | 28.59 | 4.74 | 97.20 | 2.62 | 3.20 | 184.20 | 22.14% |
| Symyx Technologies | SMMX | 60.76 | (1.14) | 81.78 | 5.5 | 4.49 | 151.75 | -18.36% |
| Synta Pharmaceuticals | SNTA | 32.51 | 79.09 | 44.16 | 5.06 | 4.31 | 146.20 | -14.82% |
| Talecris Biotherapeutics | TLCR | 71.22 | 153.89 | 65.24 | 22.27 | 19.92 | 2386.02 | n/a |
| Targacept | TRGT | 40.95 | (39.40) | 111.07 | 20.9 | 19.66 | 490.79 | -5.93% |
| Telik | TELK | 17.57 | (23.69) | 39.73 | 0.78 | 0.83 | 44.37 | 6.60% |
| Theragenics | TGX | 0.71 | 3.08 | 45.33 | 1.34 | 1.66 | 55.19 | 23.88% |
| Theravance | THRX | 88.90 | (85.30) | 155.39 | 13.07 | 13.32 | 706.40 | 1.91% |
| Thermogenesis | KOOL | 5.22 | (8.55) | 15.63 | 0.58 | 0.70 | 39.27 | 20.69% |
| Threshold Pharmaceuticals | THLD | 17.49 | (23.65) | 37.32 | 1.8 | 1.86 | 28.31 | 3.33% |
| Tongjitang Chinese Medicines | TCM | 11.03 | (3.79) | 289.07 | 3.8 | 3.78 | 127.90 | -0.53% |
| Transcept Pharmaceuticals | TSPT | 9.01 | (21.80) | 88.90 | 6.8 | 7.97 | 106.56 | 17.21% |
| Transition Therapeutics | TTHI | 15.27 | (18.04) | 39.50 | 3.6 | 2.82 | 65.48 | -21.67% |
| Trimeris | TRMS | 3.02 | 12.30 | 48.44 | 2.62 | 2.49 | 55.08 | -4.96% |
| Trinity Biotech | TRIB | 7.34 | 12.92 | 6.08 | 4.04 | 5.45 | 113.81 | 34.90% |
| Trubion Pharmaceuticals | TRBN | 23.77 | (29.18) | 51.34 | 3.85 | 4.25 | 76.00 | 10.39% |
| United Therapeutics | UTHR | 129.95 | 19.46 | 229.49 | 52.65 | 55.33 | 1462.70 | 5.09% |
| Valeant Pharmaceuticals | VRX | 64.67 | 263.74 | 81.87 | 31.79 | 42.91 | 3526.30 | 34.98% |
| Vanda Pharmaceuticals | VNDA | 24.12 | (35.86) | 205.30 | 11.25 | 11.54 | 307.58 | 2.58% |
| Verenium Corp | VRNM | 49.13 | (21.89) | 32.06 | 4.5 | 5.06 | 126.80 | 12.44% |
| Vertex Pharmaceuticals | VRTX | 522.44 | (642.18) | 1284.91 | 42.85 | 40.87 | 7383.57 | -4.62% |
| Vical | VICL | 22.85 | (28.56) | 44.26 | 3.29 | 3.33 | 134.44 | 1.22% |
| ViroPharma | VPHM | 44.90 | (11.08) | 331.67 | 8.39 | 13.63 | 1055.06 | 62.46% |
| Vivus | VVUS | 62.08 | (54.29) | 206.99 | 9.2 | 8.73 | 608.19 | -5.11% |
| WuXi PharmaTech | WX | 0.00 | 52.87 | 102.59 | 15.96 | 15.57 | 1055.01 | -2.44% |
| XenoPort | XNPT | 68.86 | (66.33) | 143.67 | 18.55 | 9.26 | 252.89 | -50.08% |
| XOMA | XOMA | 45.30 | 0.55 | 23.91 | 0.7 | 0.57 | 81.28 | -18.41% |
| YM Biosciences | YMI | 0.00 | (10.39) | 36.40 | 1.35 | 1.18 | 65.89 | -12.59% |
| Ziopharm Oncology | ZIOP | 7.38 | (7.65) | 48.84 | 2.96 | 5.08 | 122.33 | 71.62% |
| Zymogenetics | ZGEN | 120.44 | (42.98) | 174.13 | 6.39 | 5.73 | 394.21 | -10.33% |