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Biotech Visionary G. Steven Burrill Offers Predictions on 2012

Predicts improvements to the sector in the new year despite continued global economic concerns

San Francisco, CA—December 21, 2011—As the year comes to a close, biotech visionary G. Steven Burrill issued his annual predictions for the life sciences in the new year. Burrill, CEO of Burrill & Company, a global life sciences financial services firm, says companies will still face challenges raising money in 2012 as the Eurozone debt crisis and election year politics to continue to fuel volatility in financial markets. But overall, he expects the life sciences sector to outperform the major market indices in 2012 as they have in 2011 as measured by the Burrill Biotech Select Index.

“Life sciences companies faced challenges in 2011 from complex and rapidly changing capital markets, uncertainty with regulatory issues, and a reimbursement system that has grown increasingly hostile toward innovations,” says Burrill. “Nevertheless, the ongoing turmoil within the pharmaceutical industry, as well as the need to find ways to boost our agricultural productivity and develop new sources of renewable fuel and chemicals, is creating unparalleled opportunities for the biotech industry.”

For the life sciences in 2012, Burrill expects the following:

Fundraising: The global life sciences industry raised \$76.2 billion in public and private financings in 2011 year-to-date, but that number alone skews the reality for most emerging growth companies. Of that amount, debt financings accounted for \$50.3 billion in funding. The ability of companies to raise financing on the public markets will be tempered by ongoing volatility, but the environment for raising capital will improve throughout the year.

- **Biotech IPOs:** Biotech companies will continue to go public in choppy markets where they will grab opportunities as they arise. Companies in 2011 had to adjust their expectations on what the market would be willing to pay. Overall, companies ended up selling more shares for lower prices than they had set out to do in 2011. There will be a pick-up in IPO activity with several major consumer technology companies slated to go public in the first part of the year. Expect about 25 life sciences IPOs in 2012, up from 16 this year.

- **Private Financing:** In 2011, life sciences companies raised about \$7 billion in private financings in the United States. While overall private investments in life sciences will grow by about 10 percent in 2012, corporate venture capital, angel capital, and other private sources of funding will be increasingly important sources of capital compared to traditional venture capital. Traditional venture investors will continue to broaden their portfolios away from therapeutics to other areas of healthcare, with a particular focus on access and delivery. There will also be increased investment in the medical device sector, drive in part by aging population, technological improvements, and growing demand in emerging markets. The companies that get funded are the ones with disruptive technology rather than offering incremental improvements.
- **Mergers & Acquisitions:** In 2011 there was a major pick-up in M&A deal values. Several mid-cap life sciences companies are likely targets for acquisition in 2012. That will heat up activity in the sector. Large pharmaceutical companies will continue to breakdown the distinctions between pharmaceutical, biotech, generic, biosimilars, and diagnostics companies by acquiring companies across the spectrum. They will need to compete with larger biotechs, who will become more aggressive buyers of innovative companies. Non-traditional life sciences companies will also move deeper into the space. Look for a major tech company establishing itself in the bioinformatics space through an acquisition.
- **Partnering:** Pharmaceutical companies moved away from internal R&D in 2011 to rely more on partnerships with biotechs and academic centers as sources of innovation. In 2012, there will be a continued bifurcation of partnering deals as companies seek research and discovery deals with small upfront payments plus options to license compounds at one end and big dollar, late-stage deals at the other end. Pharmaceutical and big biotech companies will not be afraid to pay big dollars for assets that have largely had their risks abated. There will also be an increase in non-competitive alliances between large companies seeking to cut the cost and risk of drug development through shared research.

Regulatory: As of this writing, the U.S. Food and Drug Administration approved 30 new drugs in 2011, a significant increase over the 21 approved in the previous year. The spike in approvals is not the result of any significant changes at the agency or within industry. In 2012, there will be fewer approvals as there will be no lessening in regulatory barriers to winning approval for new drugs. Regulatory barriers will increase in the United States and lead companies to look to emerging markets for first approvals of new products. The FDA will shift from being a gold standard to a late adopter as companies will focus on getting to markets outside of the United States first because of the complexity and challenge at the FDA.

The renewal of the Prescription Drug User Fee Act will move through Congress, but despite an accord between the industry and the agency on the language of the legislation, it will get bogged down in fights over issues related to drug pricing and safety.

Diagnostics: Diagnostics will grab an increasing portion of healthcare spending in 2012 driven by the approval of new companion diagnostics, the growth of predictive diagnostics, and the emergence of an increasing number of point-of-care diagnostics.

Sequencing: Advances in this area will continue at a rapid pace and it will improve our understanding of the genetics of diseases and advance the development of personalized medicine. In 2011, the long-awaited \$1,000 genome will arrive. China's BGI, which is sequencing everything, will raise the profile of the country as a leader in personalized medicine.

Bioinformatics: The real issue is not when we will arrive at the \$1,000 genome—we are essentially there already— but when will we be able to make use of the data contained in the genome to reduce the cost of drug development, develop safer and more effective drugs, and not only treat, but prevent disease. In 2012, we will see major investment and initiatives for new ways to harness and analyze all of the information being generated in our new age of genomics.

Emerging Markets: The pharmaceutical industry's love affair with emerging markets will be put to the test in 2012 as economic disruptions in developed economies spill over into some of the bright spots of growth in the emerging world. Companies will feel mounting pressures on pricing of pharmaceuticals in these markets. A growing middle class, rising incidence of chronic disease, and aging populations, though, will keep up demand, particularly for branded generics, and continue to drive Big Pharma's strategy to build new sources of revenue growth. China will transition from being a source of low-cost labor to become a source of innovation for the pharmaceutical industry.

Healthcare: The U.S. Supreme Court will rule on the constitutionality of the Patient Protection and Affordable Care Act. The ruling will have little impact on the actual direction of healthcare reform. Any ruling by the court on the 2010 legislation will not halt the transformation that has begun. Patients, doctors, payers, and technology are already driving changes to healthcare delivery and access. Real progress will be made in moving from an increasingly dysfunctional U.S. healthcare system to an increasing functional wellness-based system that provides predictive and pre-emptive healthcare with new digital health tools to help people manage their own health.

Digital Health: The wireless revolution is driving significant changes to the way healthcare is accessed and delivered. Doctors will start to drive patient adoption in 2012. Smartphones will become the key connector between people and their healthcare providers. They will increasingly monitor and guide users on their health and wellbeing. Useful technology that better personalizes treatment, and predicts and prevents disease, will pull consumers to adoption.

Healthcare reform in Europe: Debt problems compelling cuts in entitlements will put new pressures on European governments to reign in healthcare spending. This will fuel political unrest and make drug companies the target for new pricing pressures and push systems toward value-based pricing of pharmaceuticals.

Biosimilars: With the establishment of a pathway for biosimilars, the landscape will take shape in 2012 with well funded pharmaceutical companies and generic drugmakers vying to stake a claim. Biotech companies with manufacturing expertise and capabilities will become acquisition targets. Brands—both branded generics and branded biosimilars—will become important in the global marketplace. The emergence of bio-betters will also provide a new source of competition to well established biologics.

Agricultural biotech: We will see greater global adoption of genetically modified crops and a relaxing of restrictions as resistance to their use gives way to the need of meeting world food and energy needs. Agribusinesses struck more than a dozen research agreements with biotechs in 2011 to improve crop traits and increase yields. China is likely to approve a biotech rice for planting and India will move forward on its biotech rice field trials. Even Europe will see a growth in biotech crops.

Biofuels and biochemicals: 2012 will be a critical year for the industry as companies seek access to capital to complete their scale up and demonstration facilities. It's still early times for the sector, but revenues will grow and attract capital. In 2011, 7 bioindustrial companies raised \$929 billion in initial public offerings, with three U.S. IPOs netting \$500 million. Economic and political uncertainty will continue to impede access to capital but with a dozen U.S. companies in the IPO queue, expect to see at least half of them completed their initial offerings.

Biorenewables: Big oil, chemical, and consumer products companies will play an increasingly important role in the growth of the sector, with major oil companies stepping in to take equity stakes and help with project finance, and a strong interest in bringing biochemicals and bioplastics into the industrial sector. Besides industrial oil and chemical companies, we will see consumer product makers increase investment in the sector as they respond to pressures to shift their production to use more environmentally sustainable goods and processes.

About Burrill & Company

Founded in 1994, Burrill & Company is a diversified global financial services firm focused on the life sciences industry. With \$1.5 billion in assets under management, the firm's businesses include venture capital/private equity, merchant banking, and media. By leveraging the scientific and business networks of its team, Burrill & Company has established unrivaled access and visibility in the life sciences industry. This unique combination of resources and capabilities enables the company to provide life sciences companies with capital, transactional support, management expertise, insight, market intelligence, and analysis through its investments, conferences, and publications.

Headquartered in San Francisco, the company oversees a global network of offices throughout the United States, Latin America, Europe, and Asia. For more information visit: www.burrillandco.com.

Contact:

Daniel Levine

Managing Director

Burrill & Company

dlevine@b-c.com

415-591-5449