

THE NEWSLETTER OF THE BDO TECHNOLOGY & LIFE SCIENCES PRACTICE

BDO TECH



HOW VALUABLE IS YOUR IP?

By Jerry Cullins and John Kwon

IN LIGHT OF RECENT INTELLECTUAL PROPERTY TRANSACTIONS, LIFE SCIENCE COMPANIES HAVE GROWN INCREASINGLY AWARE OF THE IMPORTANCE OF UNDERSTANDING THEIR IP PORTFOLIO VALUE.

In July, an Apple-led consortium purchased a portfolio of approximately 6,000 patents from a bankrupt Nortel for \$4.5 billion.

At the same time, Google purchased more than 1,000 patents from IBM in addition to the acquisition of Motorola Mobility and its estimated 24,500 patents for \$12.5 billion. Although these transactions relate to the broader technology industry, they highlight the importance of assessing the value inherent in a company's IP portfolio. IP is an essential asset to life science companies. As companies evaluate the "next steps" throughout the development process of molecules and compounds into viable products, it is essential that they understand the key drivers

influencing how and when value is created in an IP portfolio.

From an investor's perspective, "value" is the perceived present value of future benefits associated with a company's products or potential products. These future benefits may take the form of new revenue streams generated from innovative products, cost reductions through more efficient processes, synergies that may exist within the company's existing product lines or market share protection by limiting competition in a specific niche. Estimating the present value of future benefits requires considering not only the magnitude of the payoff but also

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DID YOU KNOW...

According to the **BDO Perspective Study**, private equity fund managers see the manufacturing industry (28 percent) and healthcare/biotech (21 percent) industry as the greatest opportunities for new investments in the next year.

Financial data firm **CB Insights** reports that VCs invested \$7.6 billion nationwide during Q4, bringing the total for 2011 back to pre-recession levels, with \$30.6 billion invested in 3,051 deals.

The cleantech industry saw record deal activity in 2011 with 391 deals totaling \$41.2 billion, a 153 percent growth over 2010, according to the **Cleantech Group**.

According to the **BDO Technology Outlook Survey**, tech CFOs expect a 2.6 percent revenue increase this year, a far cry from the 10.4 percent increase forecast for 2011.

The worldwide market for copies of biotech medicines will grow to \$3.7 billion by 2015, from just \$243 million in 2010, according to market analysis firm **Datamonitor**.

Gartner expects that IT spending will reach \$3.8 trillion in 2012, a 3.7 percent rise from 2011.

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the level of the risk involved. Value and risk are inversely related and risk is largely driven by uncertainty. For life science companies, there are many risks throughout the developmental process related to product R&D and clinical testing, as well as the uncertainty of market acceptance once the product has gone through regulatory approval and reached commercialization. In addition, the implementation and impact of recent patent and healthcare reform legislation adds another level of uncertainty to an already complex process. As many of these risks are event-driven or binary in nature (i.e., succeed or fail), estimating the present value of future benefits is not a straightforward task, often being addressed from an analytical perspective with event/scenario analyses, probability trees, Monte Carlo simulation and other financial tools.

When assessing the risk associated with an IP portfolio, it is important to step back and understand how IP is utilized in the context of the overall business. A company typically goes through various stages of development as it matures. As outlined in the AICPA's Practice Aid, *Valuation of Privately Held Company Equity Securities Issued as Compensation*, there are six stages of development through which companies typically mature:

1. No product revenue, limited expense history and typically an incomplete management team with an idea, plan and possibly some initial product development
2. No product revenue but substantive expense history, as product development is underway and business challenges are thought to be understood
3. Significant progress in product development; key development milestones have been met; and development is near completion, but generally there is no product revenue
4. Some product revenue; additional key development milestones have been met, but operating at a loss
5. Product revenue and has recently achieved breakthrough measures of financial success such as operating profitability or break-even or positive cash flows
6. Established financial history of profitable operations or generation of positive cash flows



The following studies provide guidance surrounding the rates of return expected by venture capital investors at various stages of an entity's development. While the definitions of stages in these studies are not based on the six stages of development outlined above, there is overlap between the stages and required returns. Not surprisingly, there is a clear trend that as a company (or IP asset) proceeds through the developmental process and meets the milestones at various stages of development, risk is reduced (i.e., uncertainty is resolved) and thus the required return (i.e., the discount rate applied to the future benefits) from an investor declines and the value of the company increases.

Life science companies that are developing compounds into commercialized products have stages that vary slightly from those discussed above in regard to drug development. As a company progresses through the developmental process or a product moves from pre-clinical to receiving regulatory approval, the risk profile and value of the underlying asset changes. The further along in the process, the less uncertainty there is about the IP. As the product matures through the regulatory approval process, companies may elect to license the IP underlying the product or partner with another company that may have access to greater resources to advance the product to

| Stage of Development | Plummer ⁽¹⁾ | Scherlis and Sahlman ⁽²⁾ |
|----------------------|------------------------|-------------------------------------|
| Start-Up | 50%-70% | 50%-70% |
| Early Development | 40%-60% | 40%-60% |
| Expansion | 35%-50% | 30%-50% |
| Bridge/IPO | 25%-35% | 20%-35% |

(1) Plummer, James L., QED Report on Venture Capital Financial Analysis, Palo Alto: QED Research, Inc., 1987.

(2) Scherlis, Daniel R. and William A. Sahlman, "A Method for Valuing High-Risk, Long-Term Investments: The Venture Capital Method", Harvard Business School Teaching Note 9-288-006, Boston: Harvard Business School Publishing, 1989.

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market. Typically, we would expect to see smaller biotech and life science companies partnering or licensing as they likely would not have access to the same resources available to larger corporations. Partnering vs. progressing through the developmental and regulatory approval process alone could potentially increase value for a smaller company as there would be less risk and greater certainty regarding the future commercialization of the drug.

Within each phase of the development process there are certain milestones that must be achieved before passing to the next phase. Failure to achieve successful completion of a given phase (pre-clinical studies/IND, Phase I Trials, Phase II Trials, and Phase III Trials) may result in the ultimate failure of the drug and its inability to reach commercialization. The value of the product increases upon the successful completion of each phase as there exists greater certainty that the product will achieve marketability.

To put this in perspective and demonstrate the inverse relationship between risk and value, we searched for examples of publicly traded companies that announced either an FDA hold or FDA approval. We focused on companies where a single product hold/approval would have a more dramatic impact on the overall stock price. Inmed Incorporated was notified of an FDA hold on Aug. 1, 2011, while Somaxon Pharmaceuticals received FDA approval for its product on March 18, 2010. The following graph presents the closing stock price one day prior to the announcement, on the announcement date and one day after the announcement date. There is dramatic decline in the price of the company that had a product put on hold, as an increase in risk led to a decrease in value. Conversely, the company receiving FDA approval experienced a significant jump in price as the decrease in risk resulted in an increase to value. While there are a variety of factors that may also be at play, this simple example highlights the inverse relationship between risk and value.

Overall, as a company evaluates its IP portfolio, it is important to keep in mind the relationship between risk and value. There is no cookie cutter strategy for the best way a

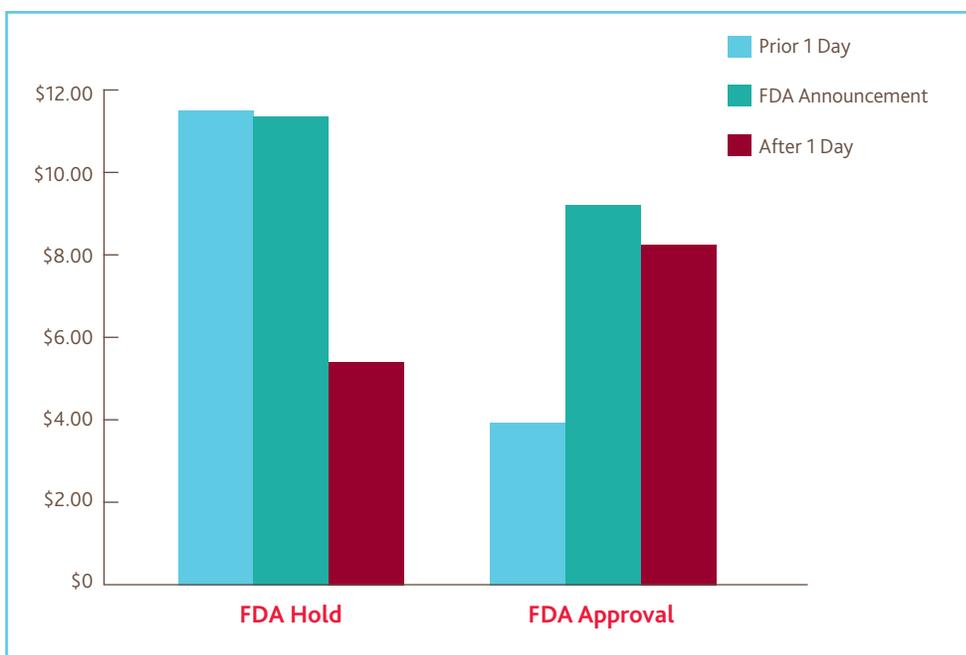
business can leverage its IP portfolio. In fact, a company may use its own IP in different ways depending on the specific situation. Management should have an understanding of the composition of its IP portfolio, the uncertainties that generate risk to achieving long-term value, the strategies available to management and how to execute a plan that enhances value upside and mitigates risk as uncertainties are resolved. The greater a company's ability to identify and communicate the benefits of its IP, the more it will be able leverage this information and

realize a financial benefit. Remember, there is value in information and the more of it you can effectively communicate, the more attractive a product or company becomes.

For more information please see the following article:

[Fair Value Challenges – Complex Financial Instruments](#)

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MARK YOUR CALENDAR

The following is a list of upcoming conferences and seminars from the leading technology associations and business bureaus:

FEBRUARY 2012

Feb. 13-16

CloudConnect

Santa Clara Convention Center
Santa Clara, Calif.

Feb. 15-16

Council for Economic Development Life Sciences Conference

Raleigh Convention Center
Raleigh, N.C.

Feb. 27-28

CTI's Fair Value Conference

Seattle, Wash.

Feb. 28-March 2

CEA Economic Retreat

The Lodge at Vail
Vail, Colo.

MARCH 2012

March 7-8

GlobalCon 2012

Atlantic City Convention Center
Atlantic City, N.J.

March 26-28

Cleantech Forum

Hyatt Regency San Francisco
San Francisco, Calif.

March 26-29

Enterprise Connect Conference & Expo

Gaylord Palms
Orlando, Fla.

APRIL 2012

April 3

Xconomy Forum: Reinventing Biotech's Business Model

PATH
Seattle, Wash.

April 10

CIO Perspectives New York

The Conrad
New York, N.Y.

April 19-20

IEEE Green Technologies Conference

Hilton Tulsa Southern Hills
Tulsa, Okla.

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