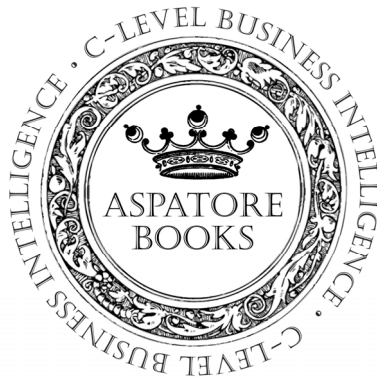


I N S I D E T H E M I N D S

Biotechnology Venture Capital Best Practices

*Top VCs and CEOs on Company Growth Plans,
Valuations, Exit Strategies, and
Raising Rounds of Capital*



BOOK & ARTICLE IDEA SUBMISSIONS

If you are a C-Level executive, senior lawyer, or venture capitalist interested in submitting a book or article idea to the Aspatore editorial board for review, please email AspatoreAuthors@thomson.com. Aspatore is especially looking for highly specific ideas that would have a direct financial impact on behalf of a reader. Completed publications can range from 2 to 2,000 pages. Include your book/article idea, biography, and any additional pertinent information.

WRITING & EDITORIAL ASSISTANCE

In select instances Aspatore will assist in helping our authors generate the content for their publication via phone interviews. Aspatore editors create interview questions that help generate the main content for the book or article. The content from the phone interviews is then transcribed and edited for review and enhancement by the author. If this method could be of assistance in helping you find the time to write an article or book, please email AspatoreEditorial@thomson.com for more information, along with your biography and your publication idea.

©2007 Thomson/Aspatore.

All rights reserved. Printed in the United States of America.

No part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, except as permitted under Sections 107 or 108 of the U.S. Copyright Act, without prior written permission of the publisher. This book is printed on acid free paper.

Material in this book is for educational purposes only. This book is sold with the understanding that neither any of the authors or the publisher is engaged in rendering legal, accounting, investment, or any other professional service. Neither the publisher nor the authors assume any liability for any errors or omissions or for how this book or its contents are used or interpreted or for any consequences resulting directly or indirectly from the use of this book. For legal advice or any other, please consult your personal lawyer or the appropriate professional.

The views expressed by the individuals in this book (or the individuals on the cover) do not necessarily reflect the views shared by the companies they are employed by (or the companies mentioned in this book). The employment status and affiliations of authors with the companies referenced are subject to change.

Aspatore books may be purchased for educational, business, or sales promotional use. For information, please email AspatoreStore@thomson.com.

ISBN 978-159622-866-5 Library of Congress Control Number: 2007941604

For corrections, updates, comments or any other inquiries please email AspatoreEditorial@thomson.com.

First Printing, 2007

10 9 8 7 6 5 4 3 2 1

If you are interested in purchasing the book this chapter was originally included in, please visit www.Aspatore.com.

Funding and Exiting a Biotech Firm: Helpful Hints—and Traps to Avoid

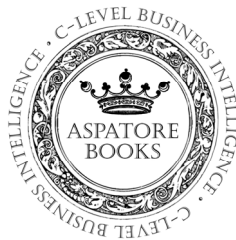
Fred Craves, Ph.D.

Investment Partner, Managing Director and Founder

William Gerber, M.D.

Investment Partner

Bay City Capital



Successful venture capital firms in the biotech sector have clear investment criteria against which they evaluate every opportunity, and experience and expertise in the industry segments in which they invest. They pay close attention to selecting the right entry point for an investment, and carefully consider possible exit strategies and timetables. At the same time, they are flexible and creative in structuring deal terms to respond to companies with varying histories, capital structures, previous investors, and valuation expectations.

The best way to make successful investments in this industry is to buy low and sell high. Selling high—if you have the opportunity—is a no-brainer. Buying low, however, is becoming increasingly difficult as more money is flowing into venture capital funds and chasing the same deals. VC firms can address that issue to some extent by investing in a broad range of life science industries (biopharmaceuticals, devices, diagnostics) at different stages of development (start-up to commercial) and by investing in public as well as private companies. At Bay City Capital, we are not afraid to get involved in turnaround situations, where the company's initial strategy has failed and/or the company's investors have run out of money or patience. In these cases, we have to roll up our sleeves and become actively involved with other investors and management in developing a new strategy, operating plan, and budget; recapitalizing and downsizing the company to conserve cash; replacing members of management and of the board of directors; and finally, executing on the plan. This process takes a considerable amount of effort on the part of a VC firm, as it essentially becomes an extension of the management.

Sourcing Deals

You cannot wait for opportunities to seek you out in this industry; you need to actively build a referral network. Our network includes strategic investors in our funds, such as major medical institutions; members of our scientific advisory board; venture partners; and associates as diverse as CEOs of portfolio companies, previous co-workers from industry, and friends and family. Like some other venture capital firms, we also write our own business plans; recruit management teams; and provide seed capital for companies in areas in which we think new discoveries or technology provide an opportunity to address an unmet need. For example, we have

started companies based on novel business strategies or innovative research in the areas of biomarkers, central nervous system disorders, atherosclerosis, and vaccines.

Our Approach to Investing

It is often helpful to take a counterintuitive approach in the biotech industry, and we think investing contrary to sector trends can be a successful hedging strategy.

We have a few principles and practices at Bay City Capital that help to define our character. First, we hire experienced managers from the pharmaceutical and biotechnology industries as investment partners and venture partners. Second, we rarely invest in a company if we cannot achieve a significant ownership position and hold a board seat. Third, we are tenacious—perhaps to a fault—in trying to see our companies through to success. We look at each investment as a major commitment of our time and energy, and not as a roll of the dice.

Finding a Funding Candidate

A company that is successful in attracting VC funding has to have a differentiated, proprietary product addressing an unmet medical need that represents a significant market opportunity. However, many companies with those essential ingredients have failed due to poor management, dysfunctional boards of directors, and investors with conflicting agendas. Therefore, we always look carefully at the management team, the board of directors, and past and current investors to assure ourselves that the company has the talent, experience, and resources needed to execute on their business plan and to successfully react to the unforeseen events that inevitably occur in the life of a company.

The first time the management team presents their company to us, we look for several key elements. First, what is the opportunity? Does the product address a real medical need? What is the size of the market? Why is the product superior to the competition? What are the barriers to entry for competitors, including the company's patent portfolio, unique technology or its head start on the competition?

Second, what is the company's business strategy? Does it reflect a broad knowledge of the field and familiarity with the industry? If the resources are not yet in place to execute on the strategy, does the CEO recognize that fact, and have a coherent plan to acquire them?

Third, what are the risks? Every investment in a company involves risk, including developing the technology, conducting successful clinical trials, obtaining regulatory approval, the strength of competitors, changing market dynamics, reimbursement, potential patent challenges, and commercializing the product. Does management have a realistic grasp of the risks, and a thoughtful plan to address them?

Fourth, is the operating plan and budget reasonable? Are the timelines realistic? Is enough money being raised to achieve milestones that will support a follow-on financing in the future at a higher valuation?

Finally, what are the likely exits, and the associated timelines?

Exit Scenario Analysis

Base Case:

- Exit after Phase IIa
- Second compound in-licensed
- Both tranches of Series C drawn
- BCC investment: \$7.4M
- Minimum Exit Valuation @ 3x: \$190M

	Cash Return	Multiple	IRR
\$ 100,000,000	\$ 12,188,309	1.6x	62.6%
\$ 200,000,000	\$ 23,131,861	3.1x	198.8%
\$ 300,000,000	\$ 34,158,306	4.6x	328.4%
\$ 400,000,000	\$ 45,040,488	6.1x	451.0%
\$ 500,000,000	\$ 55,922,670	7.5x	569.6%
\$ 600,000,000	\$ 66,804,852	9.0x	684.9%
\$ 700,000,000	\$ 77,687,035	10.5x	797.4%

Assumes 12/31/08 exit.

No Compound In-Licensed Case:

- Exit after Phase IIa
- 1st Series C tranche drawn
- BCC investment: \$3.7M
- Minimum Exit Valuation @ 3x: \$145M

	Cash Return	Multiple	IRR
\$ 100,000,000	\$ 7,929,918	2.1x	83.1%
\$ 200,000,000	\$ 15,262,815	4.1x	208.5%
\$ 300,000,000	\$ 22,459,717	6.0x	319.7%
\$ 400,000,000	\$ 29,656,620	8.0x	423.8%
\$ 500,000,000	\$ 36,853,523	9.9x	522.8%
\$ 600,000,000	\$ 44,050,425	11.9x	617.9%
\$ 700,000,000	\$ 51,247,328	13.8x	709.9%

Assumes 12/31/08 exit.

Additional Financing Case:

- Exit after Phase III
- \$50M Series D raised
- BCC investment: \$15-20M
- Minimum Exit Valuation @ 3x: \$350M

	Cash Return	Multiple	IRR
\$ 100,000,000	\$ 19,167,859	1.0x	(0.7%)
\$ 200,000,000	\$ 34,018,597	1.8x	33.9%
\$ 300,000,000	\$ 49,596,944	2.6x	61.9%
\$ 400,000,000	\$ 65,307,953	3.4x	85.3%
\$ 500,000,000	\$ 81,083,927	4.2x	105.7%
\$ 600,000,000	\$ 96,662,274	5.0x	123.6%
\$ 700,000,000	\$ 112,240,621	5.8x	139.9%

Assumes 06/30/10 exit.

The Due Diligence Process

Our due diligence checklist is most likely not very different from those of other venture capital firms; however, we may spend more time than most on financial metrics. We develop detailed forecasts of expected revenues and expenses, including upside and downside scenarios, and associated returns analyses. This exercise allows us to get a good handle on what the company's actual cash needs are likely to be; to plan our reserves for follow-on investments; and to rationalize our pre-money valuation if we choose to submit a term sheet to the company.

It is important to obtain sufficient background information in order to establish a valuation of a company, and the financial modeling that we do is only as good as the due diligence we have done. Critical inputs include market need, size and dynamics based on online resources; industry reports and calls to opinion leaders, collaborators, and potential customers; performance of competing companies and products; projected product gross margins; pricing elasticity and potential reimbursement; and likely timing of product approval and launch. We then build a model projecting the company's financial performance, and we usually model base, expected and upside scenarios. The models incorporate assumptions about how the technical, patent, reimbursement, clinical, and regulatory risks play out.

Evaluating Return on Investment

When estimating our probable return on investment (ROI), we generally expect a minimum return of three times the cash we invest and a 30 percent ROI in a four to five year period, with the potential for greater returns. However, as a fund becomes more fully invested, depending on our projections of its performance and expected life, we might consider an investment with more modest returns in a relatively short time frame.

We factor several risks into our financial analysis. By weighing the expected upside and downside financial scenarios and assigning appropriate discount rates, we determine whether we can live with the risk profile of the investment. Figure 1 is a fairly typical exit scenario analysis for a potential investment. We have modeled three possible ROI scenarios for the company involving different assumptions about in-licensing a second drug

compound for development, different investment requirements, and different times to an exit event.

Establishing Valuations for Biotech Companies

Establishing valuations for companies in the biotech industry can be quite challenging. In performing a valuation analysis of a company, we look at exit valuations (at IPO or on acquisition) for comparable companies in the industry and, based on a company's current and future financing needs, work back to a current valuation that will give us the opportunity to realize our expected returns.

In the short term, we believe that a reasonable valuation is most likely one that the company thinks is a little too low, and we think is a bit too high. In the long term—in the absence of an unexpected home run—a reasonable valuation allows us to realize our minimum returns expectations.

Some general rules of thumb when establishing valuations:

- Use as industry benchmarks recent valuations of comparable companies at a similar stage of development.
- Confirm that the valuation meets your returns hurdles, using reasonable assumptions about the company's performance, and the timing and likely valuation at exit.
- Be patient and do not overpay. A company that gets financed at an unrealistic valuation and subsequently misses its milestones can represent an attractive investment opportunity when it needs to raise its next round of financing.

Valuations for Private and Public Companies

Valuation is relatively straightforward for most public companies, since their market capitalization has been established. In most cases, private investments in public companies (PIPE) financings are done at a discount to market, and may involve the issuance of warrants depending on market conditions and the demand for security. Warrants are an option to buy shares of the company in the future at a defined price. Discounts can range

from 5 percent to 30 percent, and warrant coverage can range from none to as much as 50 percent of the number of shares being purchased.

Private companies pose a greater challenge, because their valuation expectations may have more to do with the post-money valuation of their last financing round than with reality. However, there are some general criteria that help to establish a ballpark in which valuation discussions can be played out. These include:

- Industry segment. In general, pharmaceutical company valuations are higher than device or diagnostic companies because a single successful drug can generate revenues as large as those of a successful device or diagnostic company with multiple products on the market.
- Stage of product development. Prices paid by acquirers are progressively higher as the product moves from preclinical development, to clinical proof of concept, to regulatory approval. Few diagnostic or device companies go public before their products are commercialized, and companies developing pharmaceutical products currently need to complete Phase II clinical trials before they attempt an initial public offering (IPO).
- Depth of pipeline. A single product company will command a lower valuation than a company that has a pipeline of products or a platform that promises to provide new product candidates.

Choosing a VC Investor

Although every CEO wishes to maximize the valuation that her company receives, we believe that entrepreneurs should make the proposed pre-money valuation one of a number of considerations in selecting a VC syndicate.

First, consider the domain expertise of the venture capital firms you are talking to. Do they have industry experience at the operational as well as at the investment level? Can they contribute to your company's strategy, and provide expertise in addressing the challenges ahead?

Second, consider the reputation of the firms. Talk to other CEOs of companies in their portfolio to find out how they “wear” over time as board members. Look at the other venture capital firms that they have participated with in making investments in other companies. Are they quality firms with sufficient funds to continue to finance a company if the plan does not work out as expected?

Third, evaluate how they have conducted the due diligence process. Have they addressed and demonstrated familiarity with the key issues your company faces? Have they used quality consultants? Has your comfort with them increased over time? Do you think they will be good partners if the going gets rough?

Maximizing Valuation

If you have taken these factors into account, then all other things being equal, you can make valuation the tiebreaker. In order to maximize your company’s valuation:

1. Use realistic, defensible assumptions in building your financial forecast. As a CEO, you have to be bullish about the prospects of your company. However, the more inflated your model, the more concerned we are going to be about your judgment, and the more likely it is that we are going to ignore your model and build our own, widening the valuation gap.
2. Similarly, use a reasonable set of comparable companies when you present exit scenarios involving an acquisition or an IPO. Citing only those companies that had IPO or acquisition valuations at the top of the range invites the response outlined above.
3. Try to understand and be responsive to your new investors’ perspectives and circumstances. Do they have specific concerns that you can address? Is their institutional memory affecting their judgment? Is the portfolio of their current fund placing constraints on their returns requirement? Are they concerned that the financing will not be adequate to allow the company to achieve milestones that will support a step-up in valuation when it is time to raise money again?

4. Address the issue head-on with potential investors and your entire board of directors. Deals are lost every day because CEOs allow this to become an us (board of directors) versus them (investors) process. Try to make the discussion as transparent as possible, so that each side understands the other's perspective and issues. Your chances of bridging a valuation gap are greatest when everyone has enough information to apply their experience and creativity to solving the problem.

Exit Strategy Options for Biotech Companies

Historically, biotech company exits have either been through acquisition or by going public on the NASDAQ. In the bull market of 2000, most companies chose the route of IPOs. Acquisitions tend to predominate when the public markets are relatively closed to issuance of new securities, as is currently the case. In addition to market dynamics, a shift has occurred in the strategy of large pharmaceutical companies that is accelerating the pace of acquisitions of biopharmaceutical companies. In the face of declining productivity from their internal research and development programs and very large cash reserves, large pharmaceutical companies are increasingly looking to licensing deals and acquisitions as a way to fill their pipelines. As a result, biotech companies are increasingly planning an exit strategy that involves an acquisition.

With the NASDAQ market continuing to set a high hurdle for IPOs, some biotech companies are pursuing alternative strategies in order to go public, including taking a listing on the AIM (Alternative Investment Market) of the London Stock Exchange and other foreign markets. They are also completing reverse mergers into public shells, where the company is acquired for stock by a public company that has ceased operations, cleaned up its debt and, in many cases, has some cash remaining on its balance sheet. Finally, companies may be acquired by a SPAC (special purpose acquisition company). A SPAC is an entity that has a management team and money it has raised in an IPO, with the sole purpose of acquiring an operating company and then getting a listing on one of the major exchanges.

At the right valuation, there is no bad exit. A number of our portfolio companies have gone public on NASDAQ; others have been acquired by larger companies in their sector; and we have portfolio companies that have gone public on the AIM and through a reverse merger into a public shell. If one of our companies was approached by a SPAC considering an acquisition, we would recommend that the company take the proposal very seriously.

However, from a simplicity and liquidity standpoint, an acquisition of a portfolio company for cash is the simplest exit event, because the cash can be distributed to our limited partners on the closing of the transaction. An acquisition for stock usually involves a lockup period, as does a public offering and a reverse merger into a public shell, and then the stock may be quite illiquid because its average daily trading volume is very low. This is very common with so-called microcap stocks with market capitalizations below \$250M, and has been the case with many stocks that trade on the AIM.

Further, a public offering on a U.S. exchange has become much more complicated and expensive following the Enron scandal and the subsequent passage of the Sarbanes-Oxley Act in 2002. In order for a private company to go public in the U.S., or to be acquired by a public company, it must be in compliance with Sarbanes-Oxley. We estimate that it now takes at least six months and one million dollars for a biotech company to comply with the SEC requirements resulting from the Act's passage. The major source of delay and expense is the requirement to establish and assess the adequacy of internal accounting controls; this process takes months and involves engaging an accounting firm to assist in implementing the internal systems and assessing their effectiveness. In addition, audit firms have become more cautious post-Enron, and the cost of auditing three years of financial statements has gone up dramatically. However, an IPO is still the right exit strategy if a company has no realistic chance of being acquired at an attractive valuation, needs to raise considerable amounts of cash to get to its next value inflection point; and can go public at a reasonable valuation. The company must have the right profile for a public company in its industry segment, and have a management team that can effectively sell its story, inspire public investors' confidence, and navigate the SEC requirements imposed by the Sarbanes-Oxley legislation.

External Factors Affecting an Exit Timeline

There are a number of external factors that can create exit opportunities in this industry, or make them more difficult. If pharmaceutical companies determine that they must have a presence in a field, biotech companies with intellectual property, platforms, and products in that area can suddenly become hot properties. Monoclonal antibody companies and, more recently, companies developing RNAi as therapeutics have benefited from this phenomenon.

In addition, the regulatory environment can suddenly change a company's exit prospects. For example, the current uncertainty about the FDA's stance on approval of antibiotics for bronchitis, sinusitis, and uncomplicated skin infections has undoubtedly led some biopharmaceutical companies that are developing drugs for those indications to review their strategies and to reconsider the timing of their exits.

Unexpected and serious adverse events during drug development can also affect entire market segments. The death of an eighteen-year-old undergoing gene therapy in a clinical trial in 1999, for example, has left pharmaceutical companies on the sidelines of that field.

Timing an Exit Strategy

The best time for a biotech company to pursue an exit is when it can get an attractive valuation and achieve liquidity for its investors. The potential for an exit is affected by all of the factors discussed above, but their importance can change over time.

Historically, pharmaceutical companies have tended to acquire biotech companies when their products had demonstrated efficacy in Phase II testing and were nearing approval. However, in the last few years, as their internal pipelines have become thinner, pharmaceutical companies have been acquiring companies with products at earlier stages of development; they have even acquired biotech companies with preclinical compounds at attractive prices.

The timing of an exit tends to vary by industry segment; IPOs and acquisitions of diagnostic and device companies tend to occur after they are generating revenues, but can occur before they are profitable. On the other hand, biopharmaceutical companies tend to go public or to be acquired before they are generating revenues. It takes eight to ten years to develop a drug, take it through clinical trials, and get FDA approval. As a drug gets closer to market, the cost of conducting clinical trials increases, forcing the company to raise money or to be acquired. At the same time, the likelihood of a drug's approval increases as it gets closer to market, reducing risk and making it more attractive to public investors and pharmaceutical companies.

The health of public markets profoundly affects the timing of company exits. From late 1999 through late 2001, biotech companies with technology platforms and no products and companies with products in preclinical development were going public at what we would regard today as highly inflated valuations. After the biotech bubble burst in early 2002, biotech IPOs were essentially not getting done, and the market continues to be very selective about biotech company public offerings.

The moral to the story is that management and boards of directors of biotech companies must stay focused on creating value while they monitor the IPO and merger and acquisition (M&A) markets to determine the earliest point at which they can consider an exit at an attractive valuation.

Negotiating the Terms of the Deal

Performing a careful analysis of comparable transactions is critical to establishing a fair price for your company during negotiations with a buyer. As is the case in any sale, it is important to realistically price the asset you are selling, and to understand the market for the asset. The following are some rules to remember when negotiating the terms of the deal:

1. First and foremost, develop a detailed set of financial projections for your company using realistic assumptions in order to defend your valuation expectations with the buyer.

2. Develop and articulate a rationale for the major deal terms you are proposing; buyers are more comfortable if they are dealing with a thoughtful seller.
3. Listen carefully to the buyer's positions, and ask for clarification. Understanding what is important to the buyer will help you determine the trade-offs that are likely to work for both parties.
4. At every negotiating session, go down the whole list of open issues and determine each party's position before negotiating any individual issue. You need to study the whole chessboard before you make your next move.
5. Use the experience and contacts of members of your board and your investors. A number of the top pharmaceutical companies have been reaching out to venture capitalists in order to encourage them to bring licensing and acquisition candidates from their portfolio companies to their attention.
6. Work with the most experienced investment bank that you can. Their knowledge of the industry and relationships with potential buyers can open doors, and in the best case, can get an auction going—and an auction is the only way you can assure yourself that you are getting top dollar for your company.

Exit Advice for Management Teams

We always advise management teams to focus on managing their company to create value, not on an exit. Management and the board of directors should periodically revisit and re-evaluate the options available and the potential timing of an exit. However, management's attention ought to remain focused on building a company that will be an attractive IPO or acquisition candidate when the time is right.

It is also essential to be thoughtful about partnering key assets. A collaboration with a large company can provide validation of the company's technology platform or products, and substantial non-dilutive financing. However, it can also reduce the company's exit options by creating a situation where the only logical buyer is its collaborator. And the value of the company to the collaborator is based solely on its calculation of the net present value of future milestone and royalty payments.

The Role of the Leadership Team

When we consider an investment in a biotech firm, the CEO is critical. Does the individual have a successful track record? Is her background appropriate for the current position? Is she a team builder? Does she surround himself with strong, outspoken people? Is she an articulate, effective spokesperson for the company?

It is also essential to evaluate the members of the management team. Are the key management positions filled? Do the individuals have strong academic and professional backgrounds and relevant experience for their positions? Have they worked on teams that built successful companies? Does the team have good chemistry?

Mistakes to Avoid

All too often, management teams of biotech firms make mistakes that can affect their ability to raise funds, grow their company, and ultimately, enjoy a successful exit. Common fundraising mistakes include:

- Overvaluing the company by pointing only to companies that have been acquired or gone public with valuations at the top of the range, and by using unrealistic revenue projections.
- Focusing primarily on the pre-money valuation of their company without regard to the value new investors bring to the company.
- Overselling the company; not soliciting and responding thoughtfully to the concerns of potential investors.

Mistakes management teams make in operating their companies include:

- Waiting too long to fill key management positions with qualified individuals
- Being inflexible about strategy; not considering alternatives
- Not seeking input and advice from members of their boards of directors, scientific, and clinical advisory boards

Of course, venture capitalists make their share of mistakes in this area as well, including:

- Chasing deals—investing in overpriced companies or curtailing due diligence based on the reputation of management, board members, or the other members of the investing syndicate.
- Waiting too long to reposition the founder/CEO. It is a rare scientific founder who succeeds as a first time CEO, since his training and experience generally do not prepare him for the role. It is important to raise this issue and set clear expectations before making the investment, and to bring in an experienced CEO earlier rather than later.
- Limiting the interaction with the CEO and the company to board meetings. As a board member, it is important to let the CEO know that you want to be engaged and kept informed. A periodic phone call or visit to the company sends a strong message to that effect.

Fred Graves, Ph.D., is an investment partner, managing director, and founder of Bay City Capital, and serves as a member of the board of directors and chairman of the executive committee. Before founding Bay City Capital, he spent more than twenty-five years leading and managing biotechnology and pharmaceutical companies. Previously, he was executive vice president of Schering Berlin and chief executive officer and president of Berlex Biosciences, a research, development, and manufacturing organization. He founded Burrill & Graves, a merchant bank focused on biotechnology and emerging pharmaceutical companies. He was also the founding chairman of the board and chief executive officer of Codon, and co-founder of Creative Biomolecules. Dr. Graves is a member of the boards of directors of Poniard Pharmaceuticals and VIA Pharmaceuticals, and is chairman of the board of Reliant Pharmaceuticals. He also serves as a member of The J. David Gladstone Institutes' Advisory Council and is a member of the Board of Trustees of Loyola Marymount University in Los Angeles. Dr. Graves earned a B.S. in biology from Georgetown University; and a Ph.D. in pharmacology and toxicology from the University of California, San Francisco.

William Gerber, M.D., is an investment partner at Bay City Capital and has been with the firm since September 1999. He was most recently president and chief executive officer of Epoch BioSciences, which was acquired by Nanogen in 2004. Prior to joining Epoch, Dr. Gerber served as president and chief executive officer of diaDexus LLC, a joint venture established by Incyte Pharmaceuticals and SmithKline Beecham to apply genomics to the discovery of novel diagnostic products. Dr. Gerber previously served as vice president and chief operating officer of Onyx Pharmaceuticals, as president of Chiron Diagnostics, and as senior vice president and general manager of the PCR Division of Cetus Corporation. Dr. Gerber is chairman of Pathway Diagnostics; and is a member of the boards of directors of Conatus Pharmaceuticals; Radiant Medical; and Sangamo Biosciences. He also served on and was president of the board of Medical Quality Assurance, State of California. He received his M.D. and B.S. degrees from University of California, San Francisco Medical Center after attending Dartmouth College.

Acknowledgement: Many thanks to Stacey Leanos for her assistance in preparing the manuscript.



www.Aspatore.com

Aspatore Books is the largest and most exclusive publisher of C-Level executives (CEO, CFO, CTO, CMO, Partner) from the world's most respected companies and law firms. Aspatore annually publishes a select group of C-Level executives from the Global 1,000, top 250 law firms (Partners & Chairs), and other leading companies of all sizes. C-Level Business Intelligence™, as conceptualized and developed by Aspatore Books, provides professionals of all levels with proven business intelligence from industry insiders – direct and unfiltered insight from those who know it best – as opposed to third-party accounts offered by unknown authors and analysts. Aspatore Books is committed to publishing an innovative line of business and legal books, those which lay forth principles and offer insights that when employed, can have a direct financial impact on the reader's business objectives, whatever they may be. In essence, Aspatore publishes critical tools – need-to-read as opposed to nice-to-read books – for all business professionals.

Inside the Minds

The critically acclaimed *Inside the Minds* series provides readers of all levels with proven business intelligence from C-Level executives (CEO, CFO, CTO, CMO, Partner) from the world's most respected companies. Each chapter is comparable to a white paper or essay and is a future-oriented look at where an industry/profession/topic is heading and the most important issues for future success. Each author has been carefully chosen through an exhaustive selection process by the *Inside the Minds* editorial board to write a chapter for this book. *Inside the Minds* was conceived in order to give readers actual insights into the leading minds of business executives worldwide. Because so few books or other publications are actually written by executives in industry, *Inside the Minds* presents an unprecedented look at various industries and professions never before available.

