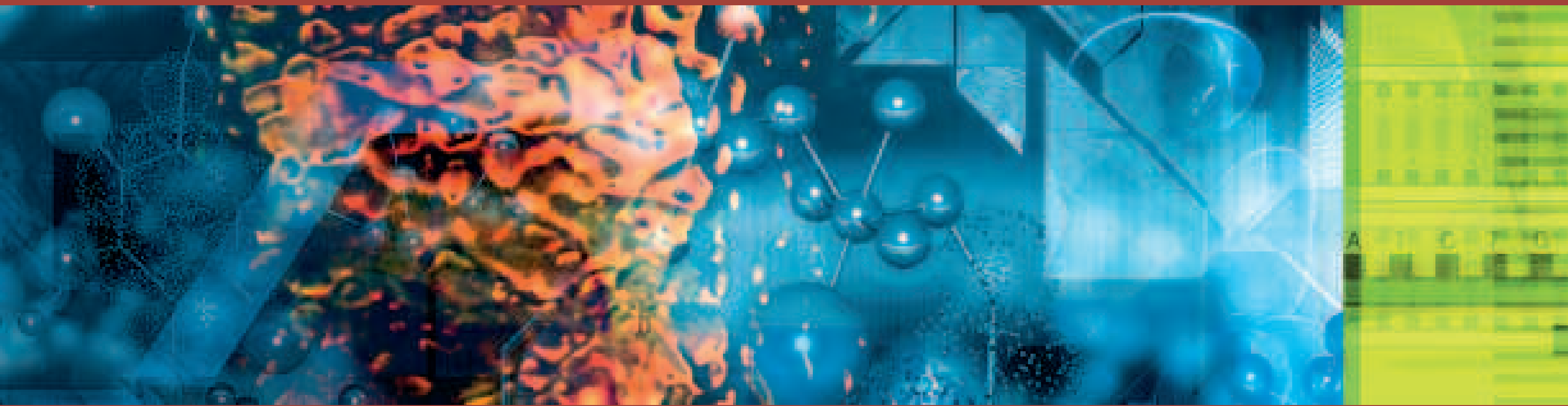
www.compstudy.com



# 2006 Compensation and Entrepreneurship Report in Life Sciences

2006

((ABRIDGED VERSION))

WILMERHALE

ERNST & YOUNG
Quality In Everything We Do

J. ROBERT SCOTT

# TABLE OF CONTENTS

**Letter to the Industry** . . . . . . . . . . . . . . . . . . . . . .3

**Summary of Results** . . . . . . . . . . . . . . . . . . . . . . .4

**Founders** . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .10

**Interviews**

Josh Boger . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .12

Guido Neels . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .18

**About the Sponsors** . . . . . . . . . . . . . . . . . . . . . . .24

We are pleased to present the 2006 edition of our annual Compensation and Entrepreneurship Report in Life Sciences. This survey represents our most comprehensive respondent population to date with data from more than 800 executives and over 170 private companies from across the country in a wide variety of industry segments: Pharmaceuticals, Therapeutics, Diagnostics, Devices, BioInformatics, Genomics and Molecular Technologies. This survey was conducted between April and June of 2006. While the broader US economy continues to show signs of sustained recovery, companies and investors struggle to understand the affect on compensation and the ability to attract and retain key executives.

Our inspiration for creating this survey of Life Science company executive compensation emerged from a desire to respond to our clients need for tools to assist them in critical decision making for attracting, rewarding and retaining key executives. There is very little compensation data available on private companies. Our survey continues to grow and represents one of the few reliable sources for executive pay information in the industry. The overall objective has been to provide fundamental information in a useful, analytic framework to evaluate and respond to the compensation dynamics of the senior executive team.

This study was produced by professionals at WilmerHale, Ernst & Young and J. Robert Scott. We were assisted in our work by academics from the Harvard Business School.

You may also access these summary level results from our website at www.compstudy.com for no fee. We appreciate your professional courtesy in providing proper attribution when citing study results.

Participants have been provided detailed data results at no charge. You may secure a copy of the detailed report for $500 plus a commitment to participate in our next survey. Contact Mike DiPierro of J. Robert Scott at 617-563-2770 or mike.dipierro@fmr.com to obtain the unabridged results.

Welcome to the 2006 edition of our annual Compensation and Entrepreneurship Report in Life Sciences. This Report – our fourth annual in Life Sciences - includes summaries and analysis of compensation data collected from more than 800 executives at over 170 private companies from across the country in the following five industry segments: Pharmaceuticals, Therapeutics, Diagnostics, Medical Devices, BioInformatics, Genomics and Molecular Technologies. Also inside are engaging interviews with leaders in the Life Sciences industry, Josh Boger of Vertex Pharmaceuticals and Guido Neels, formerly of Guidant.

Our inspiration for creating this survey was a direct response to our clients' requests for better access to reliable, comparable compensation data to assist them in the critical decisions involved in attracting, motivating and retaining key executives at private companies. We have been able to present the correlation between executive compensation and a number of variables, including financing stage, company size both in terms of product stage and headcount, founder/non-founder status, industry segment, and geography. We have also been able to provide a number of new analytics, including how an organization evolves with additional financing, Boards of Directors compensation and make-up, and a more granular look at company equity plans.

The survey data was collected between April and June of 2006, during a period that has seen venture capital investment in the sector steadily increase and many new companies formed. As a result, our expectation is to continue to see upward pressure on competition for executive talent, along with an increase in compensation packages.

Our survey has evolved over the years based on input received directly from the industry, and our hope is to continuously improve the data so that we can best serve the needs of our clients in the Life Sciences industry. In that regard, we encourage readers of this publication to submit comments and suggestions to help us most efficiently and accurately present the compensation dynamics of the market. Suggestions and comments should be directed to Mike DiPierro of **J. Robert Scott** (mike.dipierro@fmr.com).

Lastly, we would like to express our gratitude to two individuals who continue to contribute greatly to our publication: Professor Brian Hall and Associate Professor Noam Wasserman of the **Harvard Business School**.

KEY: Non-Founder Founder

## DEMOGRAPHICS OF RESPONDENT POPULATION

- The survey was conducted between April and June 2006. Data was collected from more than 800 executives in 170 Life Sciences and Medical Device companies.
- This report provides an aggregation of the data as well as an examination of the population from a number of different perspectives, including: financing stage, founder status, geography, headcount, business segment and product life cycle.

### Financing Rounds

- For analysis, the population was divided between companies that have raised one or fewer rounds of financing, two or three, and those that have raised four or more rounds of financing. Companies in the earliest stage represent 25% of the population, those with two or three rounds raised represent the largest slice, 50% of the overall companies, and those with four or more rounds raised comprise the remaining 25% of the population.

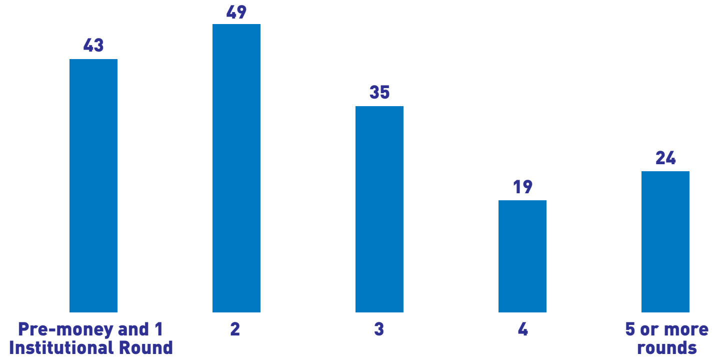
### Founding Status

- 30% of the executives in the population were founders of their company. This figure was 24% in our 2005 edition of this report. CEOs were most frequently founders of their company with 58% founders, followed by the CSO/Head of Research and Development at 51%.

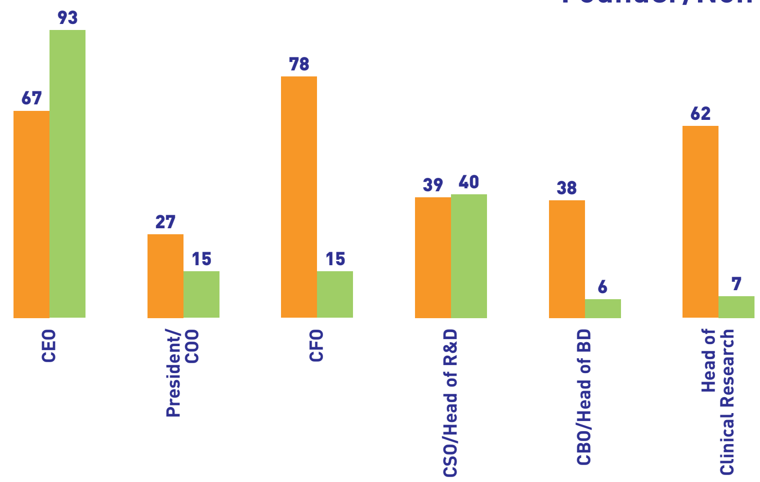
### Headcount by Number of Full Time Employees (FTEs)

- 48% of companies surveyed in this report have fewer than 20 FTEs, while 12% were in the largest category, more than 61 FTEs.

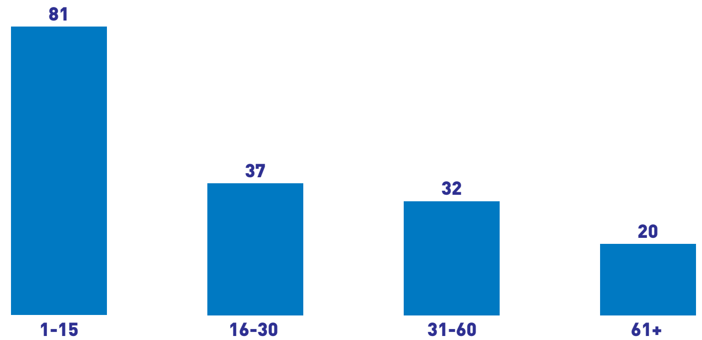
### Financing Rounds




### Founder/Non-



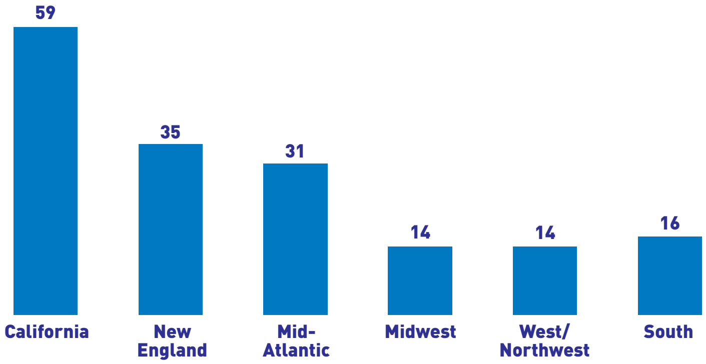

### Headcount by Number of Full Time Employees (FTEs)

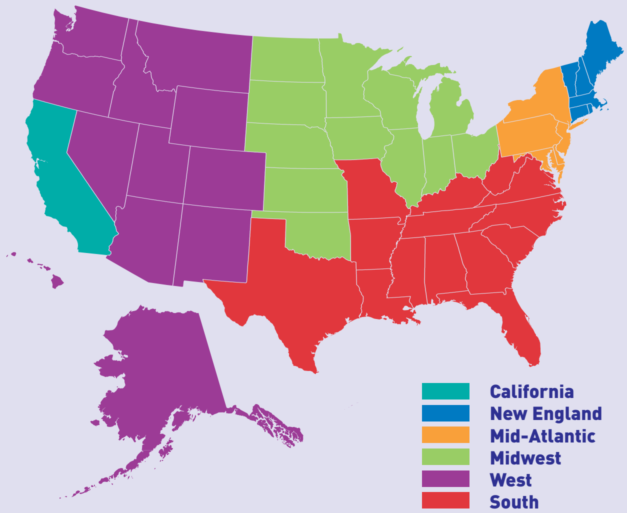


# SUMMARY OF RESULTS

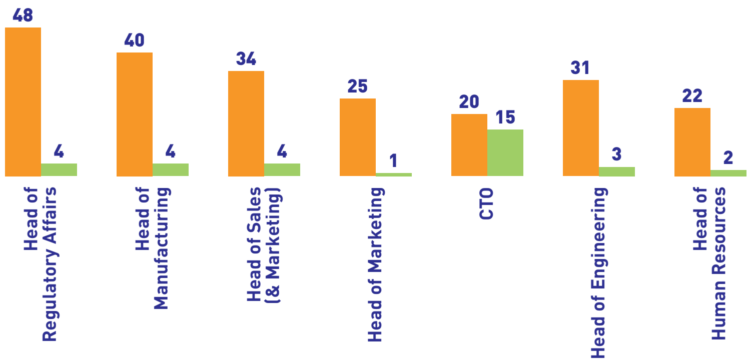


## Geography




## Founder Status




## Geography

- The geographical distribution of the respondents was most concentrated in California with 35% of the population. The New England and Mid-Atlantic regions were the next largest with 21% and 18% of the respondents in the respective regions.

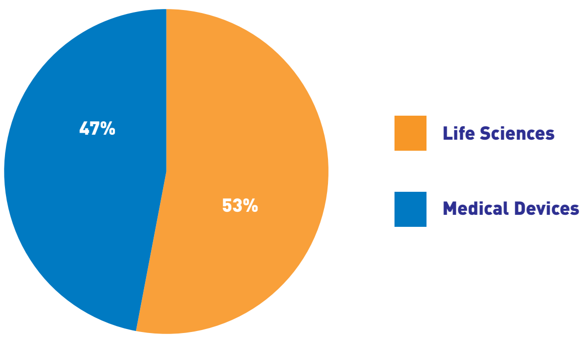
## Business Segment

- Distribution between Life Sciences and Medical Device companies was closer than in previous editions of the report; Life Sciences with 53% of the companies surveyed and Medical Devices with 47%.

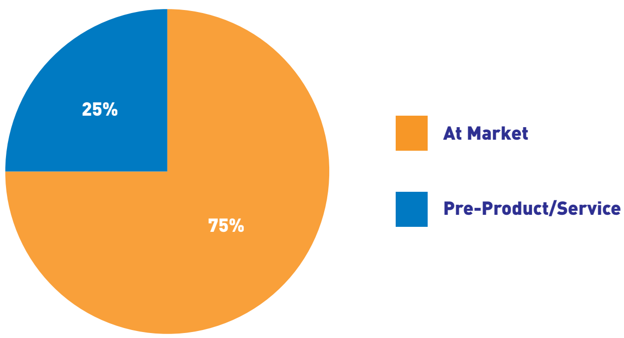
## Product Life Cycle

- 25% of the companies surveyed in this report currently have a product or service on the market.

## Business Segment




## Product Life Cycle



# SUMMARY OF RESULTS



KEY: 2005 2006 Bonus; 2005 2006 Base

## Total Cash Compensation – 2005 and 2006

**This data represents 2005 and 2006 compensation for non-founding executives.**

- The total average rise in base salary across all of the positions surveyed was 5.3% from 2005 to 2006.
- The largest increase in non-founder base salary was for the Head of Business Development, rising 11% year over year.
- The one position which saw a decrease in base salary was the Head of Manufacturing/Operations, dropping to an average of $157,000 in 2006 from $158,000 in 2005.
- The non-founder Chief Executive Officer experienced a 5% rise in base salary to $290,000 in 2006.
- 2006 at-plan, target bonus figures represent a sharp rise from actual bonus amounts received in 2005.

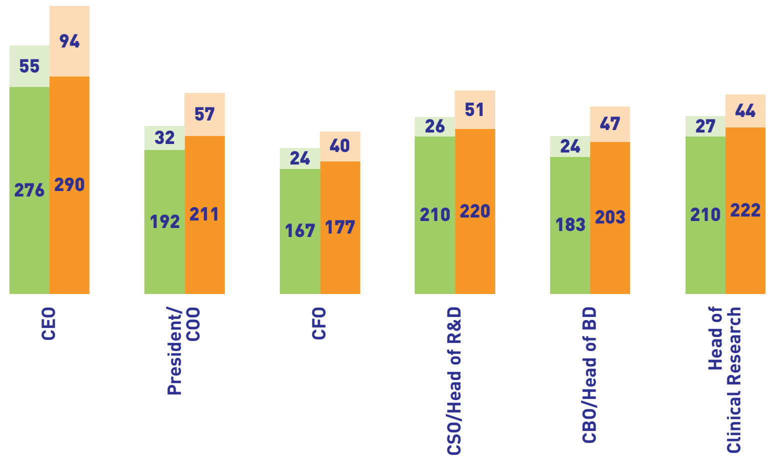
## Executives Eligible for Bonus

- The positions most likely to receive a bonus in 2006 are the CFO and the Head of Business Development, with 83% of non-founding executives.
- In aggregate, the number of executives eligible for bonus rose from 69% in 2005 to 76% in 2006.

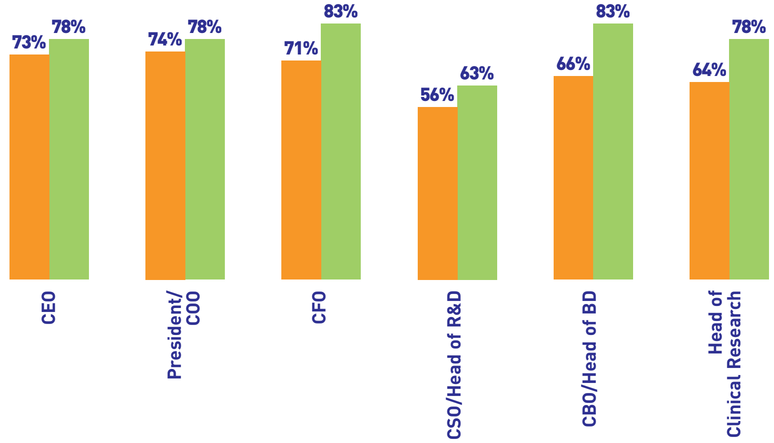
## Bonus as a Percentage of Base Salary

- In 2005, actual bonus paid to the Chief Executive Officer was 20% of base salary. For the Head of Sales, this number was 23%, highest of the positions surveyed.
- 2006 target bonus is again highest for the Head of Sales at 35% of base salary.

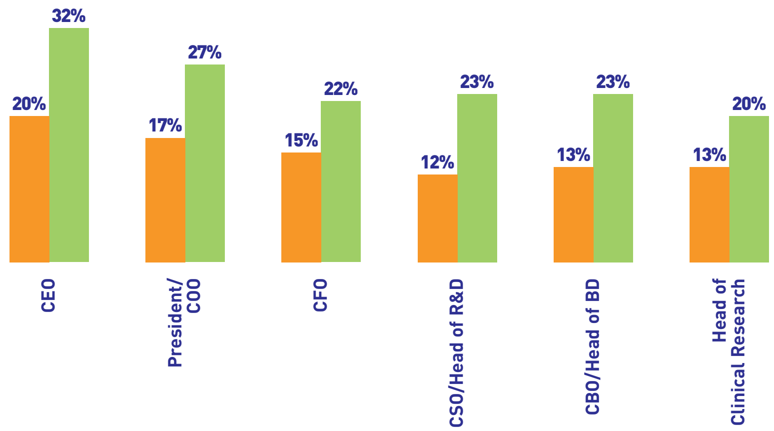
### Total Cash Compensation



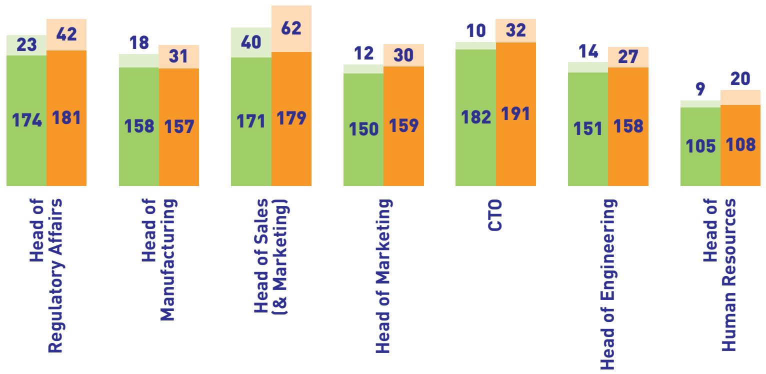

### Executives Eligible



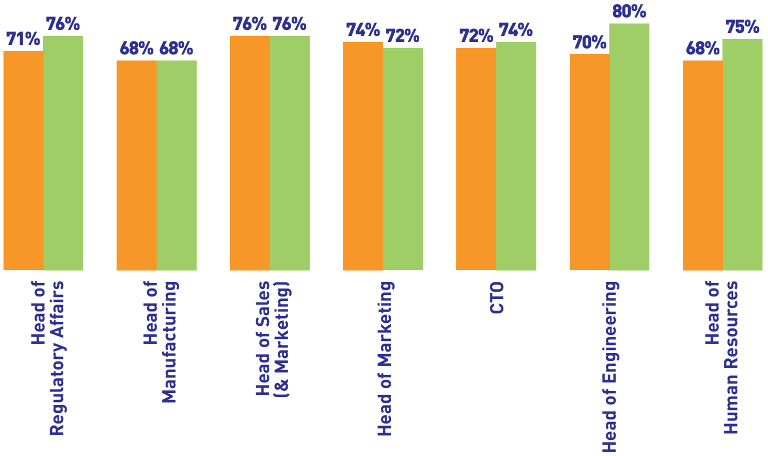

### Bonus as a Percentage of



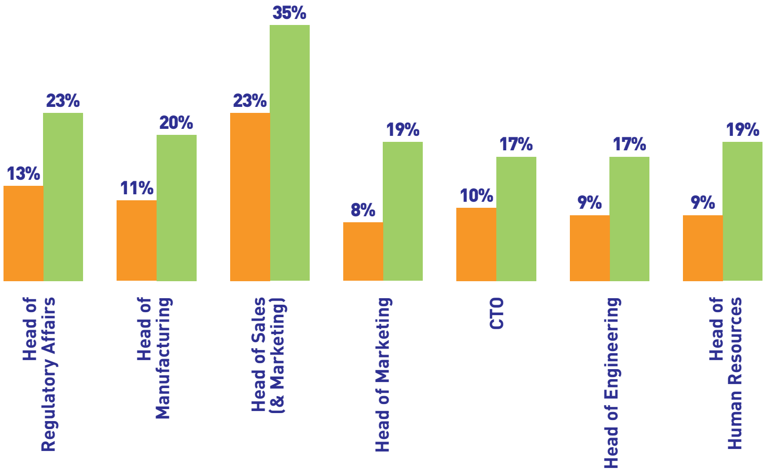
## – 2005 and 2006




## for Bonus 2006




## Base Salary – 2005 and 2006



# SUMMARY OF RESULTS



KEY: Median Average

## Current Equity Holdings

- Equity data represents fully-diluted holdings for non-founding executives.
- Average equity holdings across the 13 executive positions surveyed totals 16.2%, an increase from our 2005 report at 14.5%.
- Non-founding CEOs hold an average of 5.01% of their companies.
- The majority of the executives surveyed hold an average near 1.00% of their company.

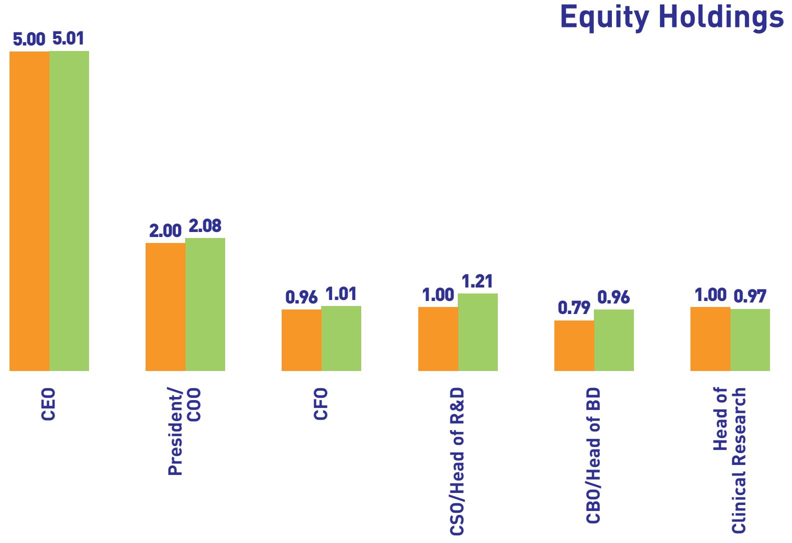
## Equity Granted at Time of Hire

- Average equity grants at time of hire were highest for the CEO at 5.24%, and for the President/COO at 2.42%.
- In 2006 we see an increase in the use of stock options. 82% of companies surveyed utilize options, with the focus continuing to be on incentive stock options, while just 4% of the survey participants use restricted or common stock only.

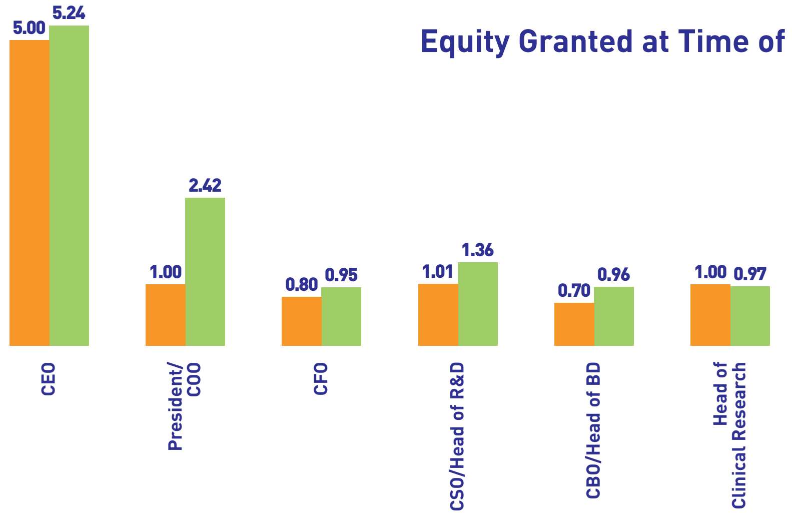
## Severance Packages

- 66% of the non-founding CEOs in the survey have a severance package, with a median of 12 months. The non-founding CSO has a severance package 44% of the time.
- Severance packages are most often set at 6 months for the management team surveyed.

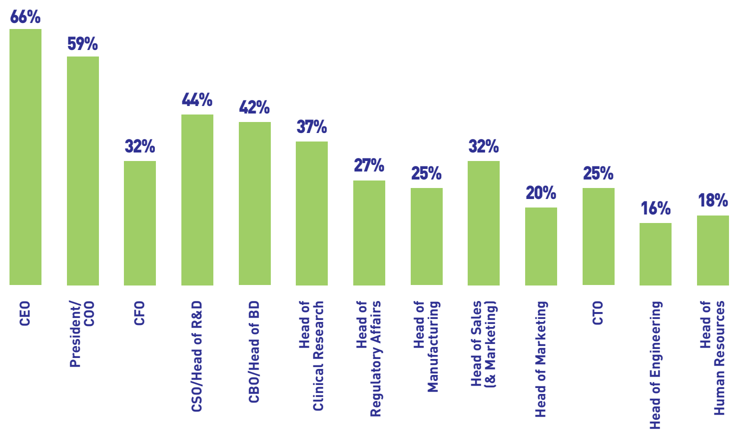
### Equity Holdings




### Equity Granted at Time of

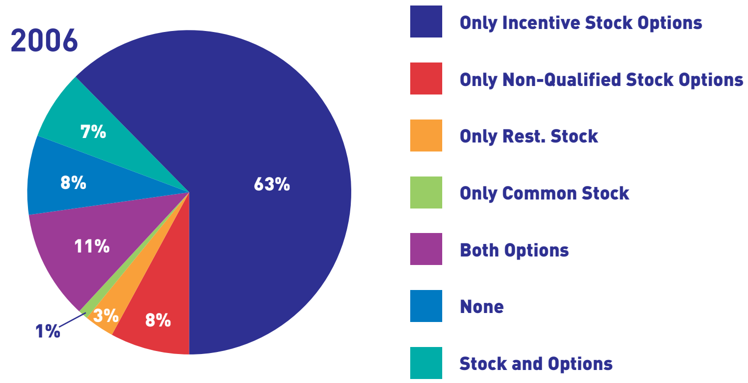



### Executives with Severance Package

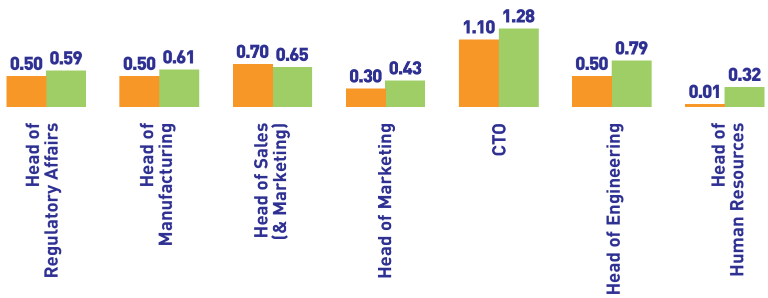


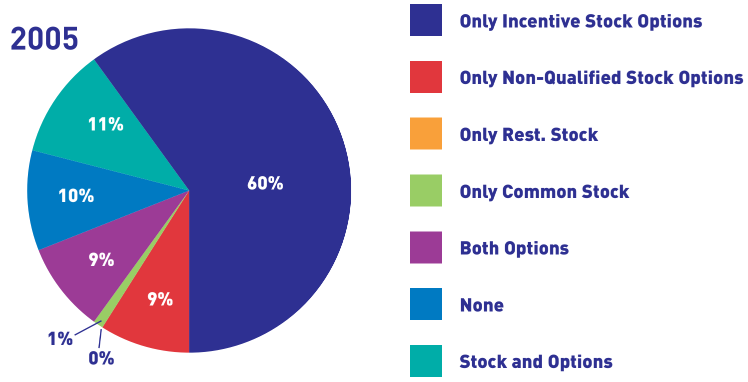
## Median vs. Average (%)


## Equity Vehicles Used

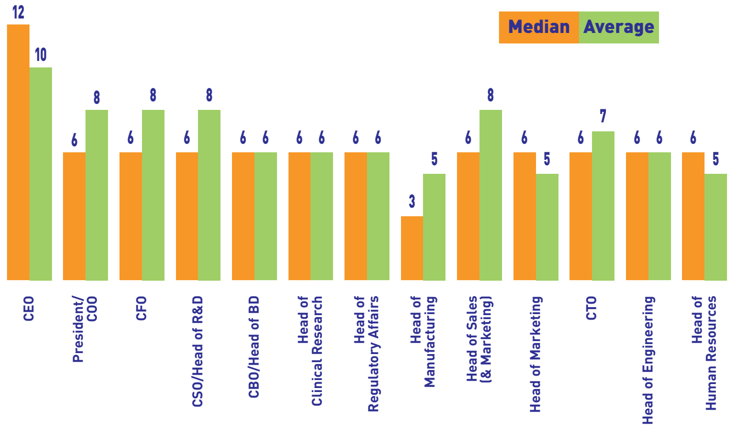


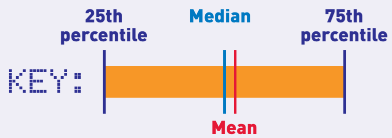

## Hire Median vs. Average (%)




## Severance Package (Median vs. Average in # of Months)






## Total Cash Compensation

- Founding executives in the 2006 report also saw a slight rise in average total cash compensation. For the founding CEO, base salary rose 6% to $238,000.
- In general founding executives earn less than their non-founder counterparts, particularly in terms of average base salary. In the seven positions with most frequent founders, the difference in base salary is 10% lower than their non-founder counterparts.
- For the CEO, this difference is quite pronounced. A non-founding CEO commands a 22% premium over the founding CEO, with an average base of $290,000 for the non-founder versus $238,000 for the founder.

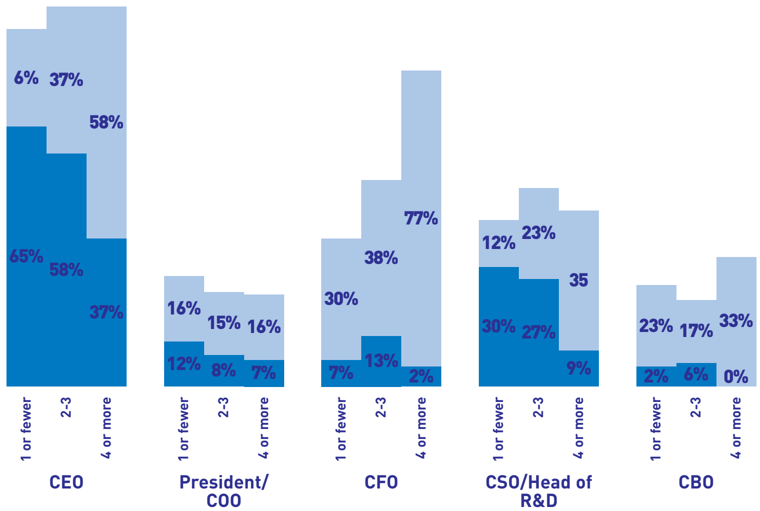
## Equity Holdings

- As expected, founders hold a considerably larger equity stake in their companies than any non-founding executive.
- For the founding CEO, the average equity holding is 13.59% while the median percentage is 8.00. This difference is attributable to a small number of founding CEOs holding a relatively large amount of equity in comparison with other founding CEOs.

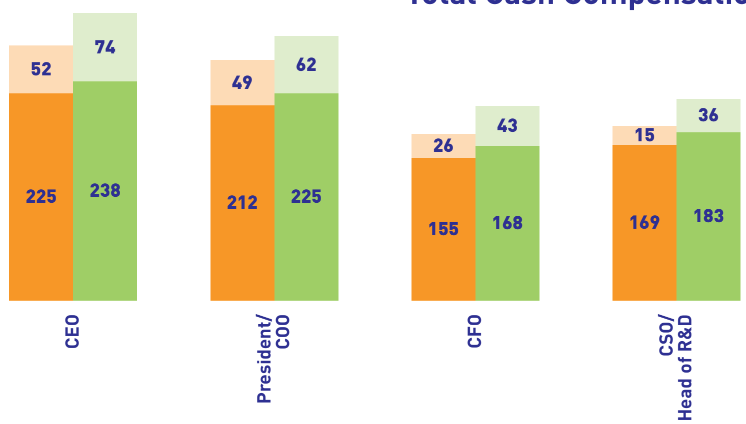
## CEO Equity Holdings by Financing Round

- Dilution of equity for the founding CEO is consistent across rounds of financing raised, moving from an average of 18.10% at companies with one or fewer rounds raised to 7.00% at companies with four or more rounds of financing.

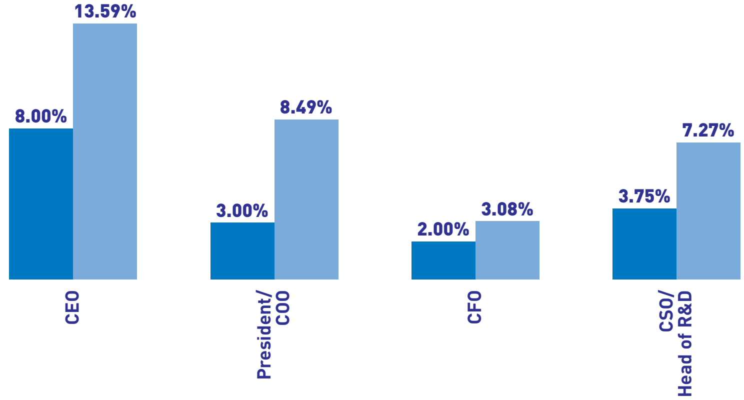
## Organizational Structure by Financing




## Total Cash Compensation

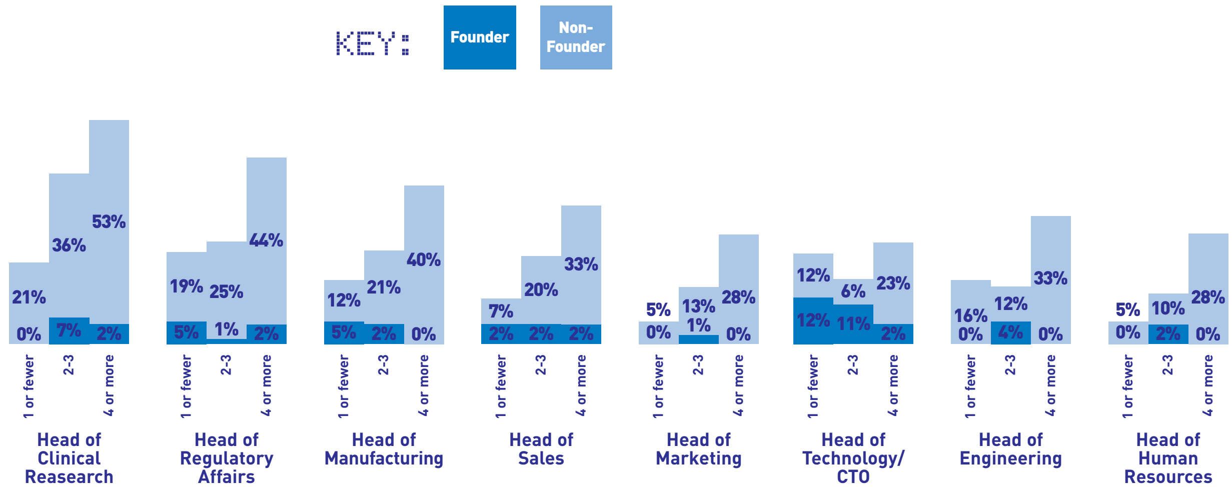



## Equity Holdings



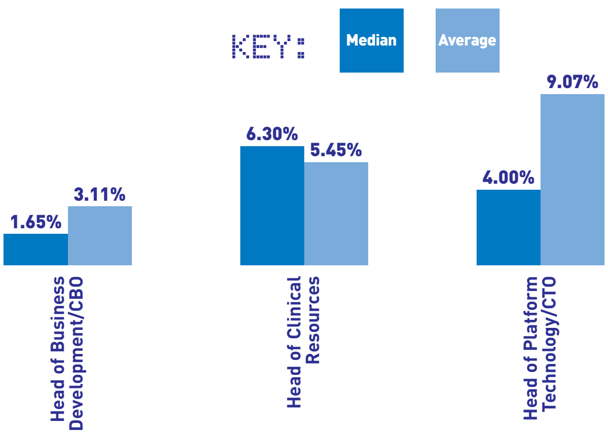
KEY: 2005 2006 Bonus
2005 2006 Base

## Round (Founder and Non-Founder)

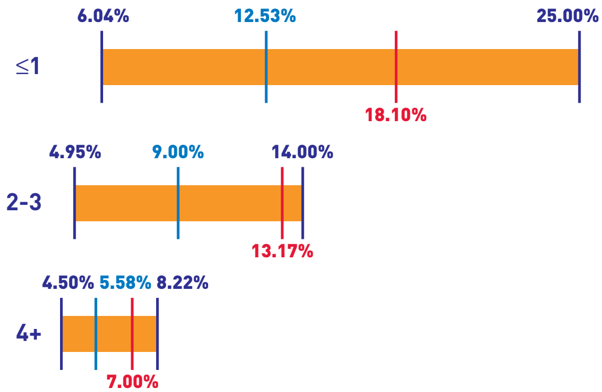



## – Founders


## – Founders




## Founder CEO – Equity by Financing Round



## JOSHUA BOGER, PH.D.

### President & Chief Executive Officer

### VERTEX PHARMACEUTICALS INCORPORATED

Dr. Joshua Boger is the founder, President and Chief Executive Officer of Vertex Pharmaceuticals Incorporated. He has been the Company's CEO since 1992, and also served in the additional role of Chairman of the Board from 1997 until 2006. Dr. Boger served as Vertex's Chief Scientific Officer from 1989 until May 1992, and has been a Director since Vertex's inception. Prior to founding Vertex in 1989, Dr. Boger held the position of Senior Director of Basic Chemistry at Merck Sharp & Dohme Research Laboratories in Rahway, New Jersey, where he headed both the Department of Medicinal Chemistry of Immunology & Inflammation and the Department of Biophysical Chemistry. Dr. Boger holds a B.A. in chemistry and philosophy from Wesleyan University and M.S. and Ph.D. degrees in chemistry from Harvard University.

**Bill: What provided the inspiration to start Vertex?**

**Josh:** Eight years into my scientific career at Merck, I was heading a chemistry group for immunology and inflammation. Ed Scolnick asked me to make a presentation to all the research heads on what Merck could do to improve research productivity. My proposal centered on bringing biophysics, computation, molecular biology, and chemistry together in one department. I had never previously attended a meeting of this group and did not have a sense of what was expected. Some of the older hands at Merck fell off their chairs at my presentation. At the end of my twenty minutes, Ed decisively pronounced from the back of the room, "Let's do it." I was just too young and too stupid to know what an audaciously specific response I had provided to a general question.

**Bill: So as you found yourself running this novel interdisciplinary department, what was on your mind?**

**Josh:** This was 1986, some 20 years ago. Merck and a lot of other pharmaceutical companies had many great, advanced technologies, such as super computing and molecular biology, but these intellectual wonders were all off in separate corners by themselves. The notion was to integrate them in a fundamental way. We started doing just that and got huge support from senior management. Finally, however, we ran into something familiar to everyone who has ever worked in a large corporation: an unsettling dark phenomenon I refer to as "middle management sludge." The top and the bottom embrace innovation enthusiastically. Many of those in the middle, however, focus on preserving the status quo. My mission was in danger of drowning in the sludge, and, somewhat ironically, I decided that success was more likely if I went outside a big company and did it myself.

**Bill: So, Vertex started as a platform company?**

**Josh:** Yes, it was a platform company, but right from the beginning it was different from a lot of other platform companies springing up at the time, ones centered on biology. The purpose of the Vertex platform is to make drugs. From the get go, we were tenaciously pragmatic and hired people from the industry who knew how to make a drug. So, yes, "platform," but with drugs resolutely and consistently in our sights.

## INTERVIEW WITH JOSH BOGER, PRESIDENT & CEO, VERTEX PHARMACEUTICALS INC.

**Bill: So, what role did the venture capitalists play in forming Vertex?**

**Josh:** The final catalyst in getting me to move outside of Merck was provided by a venture capitalist. I was going all around the country recruiting talent for my new syncretistic effort at Merck, an activity that got me a not insignificant amount of notoriety. Then, one day Kevin Kinsella, of Avalon Ventures, called me up and informed me that I could do what I was doing at Merck outside the company, and that he and a few friends would provide financing. Without his calling, I probably wouldn't have made the jump. Together, we started Vertex and did only one round of venture capital before going public in 1991.

**Bill: So good fortune in the financial world made your exposure to venture capital decidedly limited?**

**Josh:** The interesting thing was that several of the venture capitalists stayed on the Board quite a long while after we went public. They wound up playing an extended role at Vertex, helping me think through some of our early strategy after we went public.

**Bill: You still have a venture capitalist on the Board: Bruce Sachs.**

**Josh:** Bruce is a venture capitalist, but we got him on our Board while he still had an honest job. At the time, Bruce was heading a high tech company, Stratus Computer, that was later bought out by Lucent. Bruce was never a life science guy, but what was attractive was his experience with a fast growth, rapidly changing, technology driven, highly volatile industry — characteristics which seemed very relevant to our condition at Vertex.

**Bill: So you came to view high tech as a sociological analog to what you were going through in the biotechnology industry.**

**Josh:** Exactly.

**Bill: Maybe high tech represents a more mature version of biotechnology, structurally speaking.**

**Josh:** In some ways. Of course, there are similarities as well as differences. The speed of product cycle turnover is obviously faster in high tech. Getting product shipped rapidly is the high tech model. The idea of growing rapidly through development into commercialization, and doing it over and over again, was an experience of interest as we evolved as a biotech company.

**Bill: I just looked over your current Board. It is a highly accomplished and richly variegated group. Did you set out to build an advisory group that could help you in all these dimensions? Not everyone does that. Usually companies start with four venture investors and the founder; it takes a long time to dilute that homogeneous population with such external expertise as market knowledge, operational discipline, and drug development insight. What was your path in building a Board?**

**Josh:** It was quite studied, really. As mentioned before, many of the venture capitalists stayed around well after the IPO. Very early on, however, we sought to build in drug development expertise. One of the key early Board Members was Barry Bloom who headed Pfizer's research operations. Don Conklin, who was the President of Schering Plough, brought the sales and marketing moxie. They both joined the Vertex Board in 1994, and have both since retired after serving on the Board for many years. Those two early Board Members provided useful viewpoints from radically different aspects of the pharmaceutical industry. We have continued to expand our Board equation in other ways. Elaine Ullian, Chief Executive Officer of New England Medical Center, runs a major healthcare provider organization, overseeing an enterprise that is largely people-focused. Elaine offers great insight into the management of human capital.

**Bill: I see that Eve Slater has come from the Public Health sector.**

**Josh:** Eve was head of Regulatory at Merck for a long time. So she comes from the regulatory side of the development process and then went into a brief stint in HHS. So she brings that perspective as well.

**Bill: A lot of our smaller, pre-public clients are asking us now to find Board Members who have commercial operations experience and drug development exposure. This kind of importation of talent now seems to be happening earlier in the corporate life cycle and has become a conscious gesture in the program of many early stage venture investors. You seem to have gone down that track all on your own maybe because you went into public ownership so quickly?**

**Josh:** I think the IPO gave us the opportunity to do so. One of the distinguishing aspects of Vertex's history is that myself, and others involved in the early history of the company, really had a practical view of what we were up to, and the idea that you want to bring worldly experience into the Board came naturally.

## WILLIAM A. HOLODNAK

## President

## J. ROBERT SCOTT

William A. Holodnak is Founder and President of J. Robert Scott. In addition to managing the firm since its inception in 1986, Bill conducts senior level search assignments in a variety of industries including For-Profit Education, Biotechnology, Medical Devices, Financial Services, and Technology. His practice emphasizes assignments for Chief Executive Officers and Members of the Board of Directors.

Prior to joining J. Robert Scott, Bill was a Vice President of a retainer-based executive search firm which serviced the Venture Capital and High Technology industries on a national basis. Previously, he was a member of the professional audit staff of PricewaterhouseCoopers' Boston office and holds a CPA certificate in Massachusetts. Before joining PWC, Bill successfully managed the Brattle Theatre in Cambridge, Massachusetts.

Bill holds an MBA from Boston University (1976) as well as a graduate degree in Medieval History from The Johns Hopkins University (1971). His undergraduate degree is from Canisius College (1968) in New York. He has taught courses in History and Film Criticism at both Johns Hopkins and Boston University respectively. He has spoken at Harvard Business School, Northeastern University, Babson College and Boston University on organizational development, succession planning and career management. Bill is a Trustee of the Berklee College of Music and Chairs the Membership Committee and serves as an Advisor to the Harvard-MIT Division of Health Sciences and Technology.

Bill is married with two children, Lili, a graduate of Princeton University and the creative writing program at Boston University, and John, a graduate of Amherst College.

**Bill: In the same way that caused you to seek industrial-strength drug finders as you build your R&D function?**

**Josh:** Absolutely. Drug finders from the R&D side; drug marketers from the commercial side.

**Bill: Do you compensate Board Members primarily in stock or primarily in cash? Has the proportion changed over time? Finally, is there any particular enticement that gets people on the Board other than the company's accomplishments and your winning personality?**

**Josh:** I think it has to be the stimulating qualities of the human and scientific content of the company that does the trick. The financial reward is often not enough to justify the work. Over the past two to three years, the work involved in being a Board Member has just skyrocketed. We and others have responded to that by modestly raising both cash and stock compensation. Frankly, however, if you look at the compensation, Board membership still has to be a labor of love, considering the amount of work required.

**Bill: Back to the evolution of the Vertex management team. Are you the one and only President and CEO of the company?**

**Josh:** I was the original President. Then we looked for a CEO for a few years, and our founding Chairman, Benno Schmidt from J. H. Whitney, at one Board meeting was said to say when I was out of the room, "Why don't we stop looking for a CEO, we already have one." So I was the first CEO as well. Then I gave up the Presidency to Vicki Sato as she rose to that job. She is now retired, and I have taken that title back.

**Bill: In my opinion, you fundamentally set the tone in terms of the classical biotech management team by having business under one executive and science under another— what you did with Rich Aldrich and Vicki. Tell me how you began with Rich and how you came to hire him and what you originally expected out of him. He was a young and relatively inexperienced guy when you got him, was he not?**

**Josh:** I was looking for someone that had some experience in business, particularly deal making. This was very early, and so my expectations were modest. I wasn't going to look for a proven rain-maker or someone necessarily steeped in science. But in addition to being a go-getter, what distinguished Rich was that he had an intense and sincere interest in the science parts of the business. Rich could cut through the scientific jargon and get to what was important commercially. His charge was to build the business side of Vertex, and he did a great job at it. I also realized that if Vertex was going to be a great company, it needed great leadership in science. I was leading those efforts at that time, but essentially every manager's job is to find someone to replace them. I decisively got out of the role of Chief Scientific Officer by hiring Vicki Sato from Biogen, albeit after an extended courtship. She basically took over the Science side of the company and then, in her later years with the company, took some of the business functions as well.

**Bill: What, in your mind, led you to that subsequent choice of Vicki as President?**

**Josh:** The company was growing larger and needed tighter integration of some of its key functions. Commercialization, for example, requires a tighter integration with R&D, and Vicki brought a savvy business sense with a deep and broad understanding of the R&D..

**Bill: In the wake of Vicki's retirement is the place different?**

**Josh:** Yes.

**Bill: Is it run differently because of her departure or is it run differently because of its growing size and complexity?**

**Josh:** Vicki's departure was a planned process. After she left, I took back the Presidency and, therefore, took back most of her direct reports from many parts of the organization. Over the last year, I have been more deeply involved in more aspects of the organization than I was even back to the earliest years. At the same time, we made a number of key new hires. Victor Hartmann, former global head of business development and licensing for Novartis, joined us as Executive Vice President of Strategic and Corporate Development and has proved to be a very important addition to the management team.There are now seven of us making key business decisions, where in the old days there were only three of us deciding things. The point of integration is now seven rather than three; the business is more complex and benefits from the expanded executive team

**Bill: It has been said that improvisatory ability in leadership is critical to a biotech company's profitability and survival. Most life science businesses succeed on a basis other than the one on which they were started. Tell me how improvisation is evident in your leadership of Vertex, how the company has survived and how you have survived as the leader for all these years.**

**Josh:** I think we have a "planned improvisational strategy." True belief in a portfolio has been central to Vertex's business philosophy and is rare within the industry. If you have a portfolio, you really do have to love all your children equally. You can't say I have a portfolio, but this is my major project; then, you don't have a portfolio, you have one project and some hedges. We have always had a portfolio and managed products objectively and with discipline. At Vertex, this has been consistently true, even as the portfolios have gotten bigger as we got bigger. Having said that, when one of the children wins a prize and the others do not, that child gets favored. You follow the data and projects as they rise and fall on that basis. We have tried to never prematurely pick out the favored molecule.

**Bill: Immunology seems to be part of your early background and is certainly an essential part of this company. Historically, has Vertex been strategically organized around disease state opportunities or are you truly catholic with respect to disease states in developing product strategy?**

**Josh:** We are undergoing a transition there. The first fifteen years has been about almost studiously avoiding trying to specialize in disease states. Our effort has been directed around trying to figure out where the discovery opportunities that gave a competitive advantage lay and then aggressively pursuing those.

**Bill: These are technological categories.**

**Josh:** Isolating technological categories, insights, particular platform advantages and then following those for unexpected results. Such an open-ended framework may take you in some other directions. The process was more inductive than deductive, enlightened opportunism born of intense effort rather than the categorical determination of disease states. We are moving to a hybrid model that emphasizes disease state expertise while still staying flexible and letting the discovery opportunities drive us. We must remain aware of the fact that we have some therapeutic areas now where we have both expertise and emerging product capabilities. So we will favor some of the activities in those areas. Maintaining this balance is going to be important for a long time. We all know the numerous examples of blockbuster drugs with major uses outside of their original area of therapeutics. So you just cannot be so therapeutic focused that you miss that. We now have some therapeutic focus on anti-virals and on immunological approaches to inflammation and auto-immunity. Those are two areas, however, that have their genesis in our discovery work that goes back into the early 1990's.

**Bill: So, might the company become more structured in its thinking about these things going forward?**

**Josh:** It might, but we will take the opportunity to open up development opportunities in new disease areas as well. So it is likely, for instance, that we will establish a product focus in neurological diseases. This decision derives from the fact that CNS disorders represent a major market, and we have grown to a point where we believe that we could compete in that area.

**Bill: If we look at the inside and outside possibilities for the company and the company's portfolio, how much does a "not invented here" mentality rule at Vertex? How flexible and opportunistic are you? How open and how xenophobic do you tend to be with respect to new external opportunities?**

**Josh:** I think one of the little known, or unknown, stories of Vertex has been that we are always on the prowl for outside opportunities, and we have come extremely close to taking some of those in. We just have not actually done it. Our lack of documented success in importing products did not occur because we either don't look or because we only look every five years. We are looking all the time. My conclusion is that our lack of in-licensed products derives from our very strong internal product generation capability. It establishes a pretty high bar to have something from the outside push aside something from the inside. The other consideration comes from the fact that we are not a desperate buyer.There are a lot of desperate buyers out there, and if they don't bring in something from outside, they don't have a going concern. And to the extent that they have resources, the desperate buyer will always outbid us.

## INTERVIEW WITH JOSH BOGER, PRESIDENT & CEO, VERTEX PHARMACEUTICALS INC.

**Bill: My final questions might have to do with the future. I always looked at the CEO job, specifically in smaller companies, to be the toughest imaginable. Do you still enjoy it after all these years?**

**Josh:** Yes I do. I enjoy it because the role has changed quite often while I have been in it. We have a lot of growing to do, and there is much more change and excitement to come. Vertex is assuming greater external focus, and I am spending a lot more of my time on outside matters, which will be important for the company as we grow.

**Bill: Mortality is a condition that seems to plague us all. Is there a clear succession plan on what you have now? Or a bunch of very talented executives in different functions, proving themselves in various ways as the business evolves?**

**Josh:** Well, I think this is the principal job of the Board of Directors. In fact, it is probably the number one, two, and three jobs of the Board of Directors: to worry about succession. The CEO should help out with that. I think we have an extremely talented management team with a mission that is pretty daunting. That team is dedicated to making VX-950 the first drug that we take all the way to the market ourselves. We believe it will be a major drug and a major therapeutic advance. This only ups the ante for a Board of Directors to maintain succession-planning discipline. We actually have an active process, not just for myself but also for all the key people in the company.

**Bill: If you had to speculate, where would the future leadership come from, the scientific side or commercial side?**

**Josh:** I think that that is an active discussion. There are some fantastic role models from both of those sides. When I joined Merck, Roy Vagelos came on board about the same time and he was the guy out of a professorship at Washington University in St. Louis. He made his mark and Wall Street loved him because he made practical business decisions. Who would have guessed that from an academic?

**Bill: Do you have any plans for a second life?**

**Josh:** This is not being coy. I am really, really busy right now. I do have a few hobbies that could use some work in the near future.

**Bill: You sit on some Boards, that of your alma mater, Wesleyan, for example.**

**Josh:** Yes, and I take over the Chair of BIO next year. That will take up more than a little bit of my time for a couple years. I also scuba dive, I drive formula race cars . . .

**Bill: So your second life is still a ways away.**

**Josh:** Yes, still a ways away.

## GUIDO NEELS

From July 2004 until retiring in November 2005, Neels served as Chief Operating Officer of Guidant Corporation, a world leader in the development of cardiovascular medical products. In this role, he was responsible for the global operations of Guidant's four operating units: Cardiac Rhythm Management, Vascular Intervention, Cardiac Surgery, and Endovascular Solutions. From December 2002 to July 2004, Neels was Group Chairman, Office of the President, responsible for worldwide sales operations, corporate communications, corporate marketing, investor relations and government relations. In January 2000, he was named President, Europe, Middle East, Africa and Canada. He previously served as Vice President of Global Marketing for Vascular Intervention and as Managing Director for German and Central European operations.

From 1982 until Guidant was spun off as an independent public company from Eli Lilly and Co. in 1994, Neels held various general management and sales and marketing positions at Lilly in Europe and the U.S. From 1972 to 1980, he held positions in information technology, finance and manufacturing at Raychem Corporation in Belgium and the U.S.

Neels is a director of the New England Healthcare Institute, a nonprofit, applied research health policy organization. He holds a M.B.A. degree from Stanford University and a business engineering degree from the University of Leuven in Belgium.

**Bill: Your career has been a richly variegated one. Why don't you give us a little color as to how it evolved?**

**Guido:** After university, I began in Europe in data base management, finance and then moved to manufacturing while at Raychem, a great inventive material science company that no longer exists. It was in California, with Raychem, that thoughts about radically changing my career direction occurred. Truthfully, my background at the time was a bit narrow. Raychem essentially told me that in order to make a transition from overhead/support to the revenue/customer side, I would have to start all over at the bottom of the organization. This news was frustrating and led me to Stanford for a graduate degree. I only got into sales and marketing after my MBA. I started all over again at the bottom of the organization at Eli Lilly.

**Bill: So when did medical devices enter you life?**

**Guido:** As I completed the MBA, my preference was to be a part of the growth in the technology sector; whether in life sciences or telecommunications, I just didn't care. Life sciences won out when I met Lilly during the recruiting cycle. At the time of the campus interview, I didn't know Lilly from Adam. I did, however, like these people right away. They seemed very flexible, as well as being pleasant and caring human beings. In the end, I joined that company because I wanted to get into its medical devices division. Their strategy for building the medical device business was also appealing and the decisive consideration for me – a small organization within a large one.

**Bill: Was Lilly spinning out Guidant at the time?**

**Guido:** No, we're talking 1982 now. Lilly wanted me to begin in pharmaceuticals because that was the core business and success in pharma constituted a rite of passage in the organization. I joined in England as Lilly was just getting ready to launch Humulin, recombinant insulin. This was the first pharmaceutical product in the world based on genetic engineering; I helped the launch in Europe. I moved through the sales ranks in The Netherlands where I went in 1983. In 1988, I came to Indianapolis to work in new product planning. A year later, I was able to switch to the device side when the opportunity to launch the implantable defibrillator in Europe came up and I returned to the UK to lead the creation of a pan-European business through establishing a dedicated organization.

## INTERVIEW WITH GUIDO NEELS

**Bill: Why did you persist in your desire to be involved with devices? It seems you were building a successful record in pharmaceuticals.**

**Guido:** I like the way medical devices are run much better than pharmaceuticals. The business model is much more appealing to me. The life cycles of the products are shorter and as an executive, you are much closer to the customer. Your role has an immediate impact on the patient and the doctor. In effect, you become a partner to the physician, particularly so in my case on the electrical side of things at Guidant. Pharmaceutical companies have about 10,000 scientists who will never see their product come to life. And, when you are on the commercial side, you never feel a close connection to results. Pharmaceutical sales people perform an important educational role during their detail but when they walk out of the doctor's office they can only hope that the product will ultimately be prescribed.

**Bill: Why did Lilly want to be in the device business? For diversification?**

**Guido:** Lilly wanted to be in devices because they felt that these products were complimentary to the core business. There was also the conformist impulse. As you know, pharmaceutical companies do things in hordes. At some point in time, they all wanted to get into cosmetics and then they all got out of cosmetics. Well, they all got into devices and then most of them got out of devices. Finally, the same thing happened to Lilly. In 1994, Guidant was spun out to maximize shareholder value and to reestablish the company's focus on pharmaceuticals. At that time, I was given the option to go back to Lilly. I didn't have to think; I immediately chose Guidant.

**Bill: What was the culture of Guidant? Was innovation central to the company's ethos?**

**Guido:** A very important question. The company was built on two essential basic business principals. First of all, Guidant was going to be both a product innovator and a market innovator. The company maintained a very strong philosophy of innovation that was reflected in the fact that we spent 14% or 15% of sales on R&D. This proportional investment was more than competitive with such companies as Medtronic and St. Jude. Secondly, we were going to bring this innovation to healthcare systems across the world in an economical fashion. Don't forget, this was in 1994 and Hillary (Clinton) had just made her presentation to Congress; all healthcare stocks were under tremendous pressure.

**Bill: Did these priorities come from the leadership of the business?**

**Guido:** Yes, absolutely. It was clearly stated by the people who then were instrumental in making the company happen: Ron Dollens, Jim Cornelius, Jay Graf, Ginger Graham and others. Their commitment was both philosophical and concrete. These priorities came to be reflected in the dual structure of the organization. The business units were responsible for innovation and efficient manufacturing. Sales for interventional cardiology and cardiac rhythm management were combined on a geographical basis. Guidant separated organizational responsibility for product innovation/manufacturing from sales/customer relationships. At the same time, responsibility for the results was shared. There was a healthy tension in the matrix you were living in. This structure was uncommon in the industry, but became instrumental to the success of Guidant.

**Bill: So, when did you get back to the U.S.?**

**Guido:** In 1996, I became responsible for the global marketing of the interventional cardiology organization, the "plumbing" aspect of Guidant's business. That part of Guidant had come under stress because Johnson & Johnson had brought out its stent and did so in a dominant fashion. Acceptance of the stent was increasing and the market was expanding. We were unprepared for this market reality. Not only did we not have a stent ready, we did not have the right angioplasty balloon available and we clung to atherectomy, an interventional technique which was completely displaced by stenting. At this point, we were well along in developing competitive products and were confident that we had a good stent on our hands. Meanwhile, we knew we had to wait until the end of 1997 before we could launch the stent in the United States.

**Bill: One created internally?**

**Guido:** Yes, this product was the result of a very well conceived internal development program. This was so because the engineers went back to the cardiologists and asked them what an ideal stent should look like and really tried to adhere as closely to those specs as possible.

**Bill: Listening to the customer and exploring the internal ideas . . . are these hallmarks of Guidant?**

**Guido:** Yes, very much so.

**Bill: The model for innovation in medical devices often involves acquisition of products from small entrepreneurial companies or acquiring the companies themselves. You are telling me Guidant was indifferent to that alternative at this point of time. Was new product development an exclusively internally inspired affair then?**

**Guido:** Innovation was primarily an internal affair, yes. We kept looking, however, for technology that enhanced our position or sustained our leadership. We made some significant acquisitions on the cardiac rhythm management side: Intermedics strengthened our market presence while InControl brought some very good know how in atrial therapy in house.

**Bill: So Guidant was marketing driven in both an external and internal sense, but primarily the former?**

**Guido:** Yes, it was a marketing and innovation driven company and very competitive in this regard. The watershed event of course occurred when Guidant brought out the multi-link stent and we took 66% market share from Johnson & Johnson in seven weeks.

**Bill: Ouch!**

**Guido:** This outcome was written up in the Wall Street Journal as the biggest shift of wealth between companies in the history of the medical device industry. There were clear reasons for the profound effect of this product introduction, including the fact that our stent had already established a good reputation in Europe. In essence, we made a better mouse trap and the U.S. market was quick to recognize its significance.

At the time, even we were a little bit surprised by our own success. Then we sat back and said, what is it going to take to maintain at least 50% market share in this field? We concluded that going forward it was going to be necessary to have a new product platform every year. I think our biggest achievement was aligning the entire organization to achieve that goal. Everybody, whether they were in Research & Development, Regulatory, Clinical, Quality, Sales, Marketing, Finance or HR, everyone understood the objective – get 50% share. All of our resources were also lined up in that direction and, as a consequence, we were able to maintain that successful position for six or seven years. Not only did we bring out a clinically significant new stent platform every year, we also brought out new balloons, new wires, and the entire package around it. We refreshed the entire product line every year.

It is fair to say that we wrote the book on creating sustainable leadership in the industry. I am very proud of that accomplishment.

## INTERVIEW WITH GUIDO NEELS

**Bill: As the "czar of marketing" at Guidant, did you serve as "orchestra conductor" of this sustained effort?**

**Guido:** In a way, yes. The planning and execution of the battle plan was a team effort. That cannot be over-emphasized. There was comprehensive buy-in for our program of consistent innovation from all departments which is why we were able to control 50% of the market. Cordis, Boston Scientific and Medtronic were exchanging market share of the residual amongst themselves. Our market dominance was a sustained affair.

**Bill: What led Guidant to start Compass (the internal venture capital group)? Was there a sense that you needed more innovation than that which you could provide internally or by tapping the thoughts of creative expert physicians?**

**Guido:** You need to pull out all stops to sustain growth at scale. This is what market pressures inspire and what Wall Street expects. So if you are a $2 billion company, you ask yourself how you are going to become a $5 billion one, if you are $5 billion, then how are you going to be $10 billion; and, if you are $10 billion, then you wonder how you are going to become a $25 billion company. So we realized that a lot of the technology we already had could be applied to other clinical fields. In order to sustain momentum in the market, we also needed to get into other interesting and opportune healthcare fields while being true to our status as an innovative medical device company. The mission of Compass was to bring to Guidant new technologies in new clinical areas and we became a very active venture capital firm, particularly in the Bay Area. For example, the acquisition of CardioThoracic Systems was driven by the notion that Guidant needed to be in the cardiac surgery business. We had no internal program, therefore Compass led the effort.

**Bill: Within Guidant, was this risk-taking and stepping up to the challenge the way to the top?**

**Guido:** Yes, intelligent risk-taking was the key to career growth at Guidant. When I speak to managers, old or new, I advise them that their next job should be an assignment of which they are not sure that they are going to succeed. There has to be a personal and professional challenge to the job. I think that is how companies keep their best people. Their jobs have to be exciting, demanding and require constant learning and development. Yes, it is important to be successful, but the way you are successful also counts for a lot. Career growth requires you to migrate outside your comfort zone.

**Bill: So what did you look for in leaders of the company?**

**Guido:** First of all, you look for people who have a track record. Secondly, you look for people who have the right attitude. They have to be ambitious both for themselves and for the company. You also look for people with that attitude who are willing to make sacrifices to attain their goals. I personally have moved fourteen times during my career, half of that across oceans. Leaders have to have a vision and a proven ability to execute and accomplish goals. At the same time they have to be humble and good listeners. Furthermore, it is not all about your corporate world but it is also about the balance between family obligations and corporate commitments. Sometimes you just have to pull back a little bit on the business side to give priority to your family and the other way around. I think healthy families are required for healthy business functioning.

**Bill: You ultimately became the Chief Operating Officer of the company. As you were moving along this path, how did the need to sustain growth effect your career choices? How were you providing leadership for growth in the later stages of Guidant?**

**Guido:** Well, this was one of the biggest challenges of the last three years . . . how to keep it all going forward. The dark side of success is that you can think yourself unbeatable, or that you are always right. In this case, we didn't really see the drug-eluting stent coming. Or when we saw it, we convinced ourselves that this product did not have a future. We had tried drug-eluting stents ourselves and had come to the conclusion that such a product was just not going to work. It was only after early reports of the success of Johnson & Johnson with a drug-eluting stent that it became clear that we had to get our own program going. As a company, when you are used to leading and all of a sudden you are relegated to following it is culturally almost impossible to endure and very painful.

**Bill: So, J&J taught you a lesson.**

**Guido:** Actually, J&J got a serious leg up on us twice. First of all, Guidant didn't invent the stent. Johnson & Johnson invented the stent. Although, we feel we built a better stent, and then we built better generations of stents, they snuck up on us again with the drug-eluding stent.

In the medical device business, there are two fundamental considerations. First, there is the need to be clever and disciplined with iterative product improvement, but you must also recognize the breakthrough, the game changing event. You can never be sustainably successful if you don't do iterations. At Guidant, we had become incredibly good at iterations. This shorter term success in product development, however, had the negative effect of contributing to our belief that the drug-eluting stent was never going to work. Because we failed to recognize this particular market shift, we were pushed into follower status again. We had become internally focused to our detriment. This was a harsh lesson from J&J. The second lesson here is that if there is something that threatens you, you have to put your best people on the mitigation of the threat or create a threat of one's own. In this case, we did what most organizations typically do. We put our best people on the iterations, or what we know best, instead of putting our best people on what was going to define the future of the market and the company.

The third lesson out of the drug-eluting stent episode was that we failed to perceive the opportunity inherent in the convergence of pharmaceuticals and devices. Boston Scientific proved that you did not need to be a pharmaceutical company to be successful in this new product dimension. They were very brilliant in selecting the right drug. Then they aggressively assembled a team with pharmaceutical and mechanical insight to complete the product. That intuition and proactivity was the key to their success. As a company, Guidant kept thinking about this challenge in mechanical ways for too long and thus found itself behind the curve of innovation. At the time that I came in as COO, Guidant was back on its heels.

**Bill: Was it during this period that Johnson & Johnson tried to acquire you?**

**Guido:** Yes, so now we are speaking of 2004. We had program delays and layoffs. Then in December of 2004, the acquisition of Guidant by Johnson & Johnson was announced.

**Bill: They were kicking your butt here; so what led to their desire to buy you?**

**Guido:** They wanted to buy us for the cardiac rhythm management business and because we had an excellent interventional cardiology program. Finally, however, Johnson & Johnson ended up reducing the price after issues with defibrillators and pacemakers emerged. A relatively anemic offer opened up the gates for Boston Scientific, and the rest is history.

## INTERVIEW WITH GUIDO NEELS

**Bill: So is this transaction a watershed event? Is the market becoming increasingly consolidated?**

**Guido:** Well, not "becoming," the market has been consolidating for some time.

**Bill: Is this a quantum leap forward in realigning the structure of the medical device industry?**

**Guido:** If our acquirer had been Johnson & Johnson, it would have represented a quantum leap forward. Boston Scientific is now a reincarnated Guidant, new and improved. Meanwhile, Abbott acquired a beautiful interventional business which used to be called Guidant.

Under Johnson & Johnson, I think the picture would have looked different, at least in the short term. The result would have been an $8 billion company, the largest cardiovascular medical device company in the field. Johnson & Johnson brought the capability in market development to the party. Their capability to communicate with physicians and patients about the value of therapy is profound. It means something to the patient and to the general public when Johnson & Johnson says "if you have congestive heart failure, you need to check with your doctor if you need a defibulator." When Guidant issued that same message, there is just not as much resonance with the public. There is what they call the 'trustmark' with Johnson & Johnson. In addition, Johnson & Johnson has a lot of policy influence. We saw that when they were able to work with the agencies to get the drug-eluting stent reimbursed before the product actually came on the market. The fact that a product gets reimbursed before it gets to the market is a unique event in the world of medical devices or the medical industry in general. J&J has repeatedly demonstrated their capabilities across the world in consumer recognition and policy. Combined with the Guidant innovation prowess, it would have been a market mover.

**Bill: The story is very different with Boston Scientific?**

**Guido:** I don't know what Boston Scientific's intentions are; you need to qualify what I am saying. I think Boston Scientific's aim, rightfully so, is going to be first of all to regain the market share that Guidant lost and secondly to pay back the debt.

**Bill: What lies in your own future? Might you become a venture capitalist yourself?**

**Guido:** Well, I have become an "angel." What attracts me to the venture capital world, first of all, is the opportunity to see all these different ideas, such as the impact of information technology on the design and construction of medical devices. The opportunity to participate in the seeding of some of these ideas and then support the companies that make them a reality . . . now that is exciting. If you think about it, what I have enjoyed most in the last twenty years is grasping an idea and then taking it all the way to the market as a successful business. Venture capital will be a continuation of that pleasure.

## Wilmer Cutler Pickering Hale and Dorr LLP

60 State Street
Boston, MA 02109
617.526.6000
2445 M Street
Washington, DC 20057
202.663.6000
www.wilmerhale.com

Wilmer Cutler Pickering Hale and Dorr is internationally recognized for its experience in representing venture capitalists and their portfolio companies, initial public offerings, mergers and acquisitions, intellectual property and intellectual property litigation. As a leader in technology and life sciences, the firm represents clients in a wide variety of sectors including telecom and wireless, software, electronics, biotechnology and medical devices. The firm's full service practice also includes antitrust and competition; aviation; bankruptcy; civil and criminal trial and appellate litigation (including white collar defense); communications; defense and national security; financial institutions; international arbitration; securities regulation, enforcement and litigation; tax; and trade.

Wilmer Cutler Pickering Hale and Dorr has more than 1,000 lawyers and offices in Baltimore, Beijing, Berlin, Boston, Brussels, London, Munich, New York, Northern Virginia, Oxford, Palo Alto, Waltham and Washington, DC.

If you would like more information about Wilmer Cutler Pickering Hale and Dorr's compensation and benefits practice group, please call or email:

**A. William Caporizzo**
Co-Chair, Tax Department
617.526.6411
william.caporizzo@wilmerhale.com

**Kimberly B. Wethly**
Junior Partner, Tax Department
617.526.6481
kimberly.wethly@wilmerhale.com

## Ernst & Young LLP

200 Clarendon Street
Boston, MA 02116
617.266.2000
www.eyonline.ey.com/growth

Ernst & Young, a global leader in professional services, is committed to restoring the public's trust in professional services firms and in the quality of financial reporting. Its 103,000 people in more than 140 countries around the globe pursue the highest levels of integrity, quality, and professionalism to provide clients with solutions based on financial, transactional, and risk-management knowledge in Ernst & Young's core services of audit, tax, and transaction services. Ernst & Young practices also provide legal services in those parts of the world where permitted.

Ernst & Young's Strategic Growth Markets (SGM) practice is committed to helping emerging and high-growth companies realize the promise of innovation and achieve success through a comprehensive array of services, deep experience, and sharp insights focused on every stage of growth—from start-up to rapid growth to market leader. With over 30 years of experience advising emerging and new market leaders, the SGM practice has grown along side the hundreds of companies it has assisted, becoming the leading provider to growth companies. The SGM offering includes three foundation programs: the Venture Capital Advisory Group, the Entrepreneur of the Year® Award program, and the IPO Transformation~CEO Retreat.

If you would like more information about Ernst & Young's services, please call or e-mail:

**Bryan Pearce**
New England Area Leader,
Venture Capital Advisory Group
617.859.6199
bryan.pearce@ey.com

**Joseph Muscat**
National Venture Capital Advisory Group Leader
650.496.4517
joseph.muscat@ey.com

## J. Robert Scott

260 Franklin Street, Suite 620
Boston, MA 02110
617.563.2770
www.j-robert-scott.com

J. Robert Scott is a retainer-based executive search firm specializing in the recruitment and selection of senior managers across a broad range of selected industries. Founded in 1986 as a wholly-owned subsidiary of Fidelity Investments, the firm has developed a specialization in entrepreneurial oriented technology businesses. Specialty vertical practices include: Information Technology, Life Sciences, Financial Services, Higher Education and Not-for-Profit.

J. Robert Scott provides a thorough, timely and proven process for locating and attracting highly qualified candidates to fill key positions. Our approach is client-oriented and distinguished by a commitment to service that is not only promised, but guaranteed. If you would like more information about J. Robert Scott's services, please call or e-mail:

**Bill Holodnak**
President
617.563.2770
billh@j-robert-scott.com

**Bruce Rychlik**
Managing Director
617.563.2770
brucer@j-robert-scott.com

WILMERHALE

ERNST & YOUNG
*Quality In Everything We Do*

J. ROBERT SCOTT

WILMERHALE

ERNST & YOUNG
Quality In Everything We Do

J. ROBERT SCOTT