

Module 1: Introduction: Becoming a Player

8:30AM Thu, Sep 3, Hawes Hall 101 (Classroom)

TOPIC

Cynthia Fisher and the Rearing of ViaCell

MATERIALS

[Cynthia Fisher and the Rearing of ViaCell \(806002\)](#)

EC Weeks 1 & 2 Packet



[Entrepreneurship and Venture Capital in Healthcare Fall Term 2009: Course Outline and Syllabus \(806048\)](#)

EC Weeks 1 & 2 Packet

ASSIGNMENT

1. What is your assessment of Cynthia Fisher's career since she graduated from HBS in 1990, and her performance as an entrepreneur?
2. How difficult was it to make ViaCell a successful venture?
3. What were the major hurdles Cynthia faced in launching Viacord and then ViaCell? What did she do well to overcome these obstacles? Was there anything she should have done differently?
4. What does this case suggest are the requirements for leading a successful healthcare venture? How do these requirements differ from other ventures?

8:30AM Fri, Sep 4, Hawes Hall 101 (Classroom)

TOPIC

Stan Lapidus: Profile of a Medical Entrepreneur

GUEST SPEAKER

Stan Lapidus, Chairman of the Board, Helicos Biosciences Corporation

MATERIALS

[Stan Lapidus: Profile of a Medical Entrepreneur \(805087\)](#)

EC Weeks 1 & 2 Packet

ASSIGNMENT

1. What is your assessment of Stan Lapidus' career since graduating from Cooper Union?
2. Does Stan's "early stage" focus and his decisions to leave his start-ups within a few years make sense? Why or why not?
3. Would you invest in Helicos?


End of Module 1: Introduction: Becoming a Player**Module 2: Securing Intellectual Property**

8:30AM Thu, Sep 10, Hawes Hall 101 (Classroom)

TOPIC

Technology Transfer at U.S. Universities

GUEST SPEAKER

 Isaac Kohlberg, Senior Associate Provost and Chief Technology Development Officer, Harvard University

MATERIALS

 [Technology Transfer at U.S. Universities \(807124\)](#)

EC Weeks 1 & 2 Packet

ASSIGNMENT


1. Why was the Bayh-Dole act enacted?
2. What is your assessment of the impact of Bayh-Dole?
3. What is your assessment of the performance of Harvard's Office of Technology Development?
4. What advice/recommendation would you make to Isaac Kohlberg?
5. What are the implications of the Note for you as a potential healthcare entrepreneur or investor?

8:30AM Fri, Sep 11, Hawes Hall 101 (Classroom)

TOPIC

Syndexa

GUEST SPEAKER

 Teo Uysal, CEO, Syndexa

MATERIALS

 [Syndexa and Technology Transfer at Harvard University \(808-073\)](#)

EC Weeks 3 on Packet

 [Syndexa Poll: Complete by 7:00 AM on the day of class.](#)

ASSIGNMENT

1. What is your assessment of Dr. Gokhan Hotamisligil and his research? Why have the negotiations of these agreements been so time consuming and difficult? What are the goals and priorities of Gokhan Hotamisligil, Isaac Kohlberg, Barry Bloom (HSPH), and Teo Uysal (Syndexa)? Do you support or object to the agreements that are described at the end of the case? Do the poll.

8:30AM Thu, Sep 17, Hawes Hall 101 (Classroom)

TOPIC

Molecular Insight Pharmaceuticals, Inc.

MATERIALS

 [Molecular Insight Pharmaceuticals, Inc. \(805067\)](#)

EC Weeks 3 on Packet

ASSIGNMENT

1. What is your assessment of this venture?
2. Why are they having so much trouble raising Series B financing?
3. How would you describe Molecular Insight's approach to protection of intellectual property? What is your assessment of the approach?
4. What should David Barlow do now? Be specific.
5. Would you invest in Series B financing?

8:30AM Fri, Sep 18, Hawes Hall 101 (Classroom)

TOPIC

MINT

8:30AM Wed, Sep 23, Hawes Hall 101 (Classroom)

TOPIC

iZumi

GUEST SPEAKER

Beth Seidenberg, Partner, Kleiner Perkins Caufield and Byers

MATERIALS

 [iZumi \(809105\)](#)

EC Weeks 3 on Packet

ASSIGNMENT

1. What is your assessment of the iZumi Strategy?
2. Is the stem cell area an attractive place to start a company?
3. What do you think of the company's intellectual property plan?
4. If you were at a VC firm, would you invest in iZumi?

End of Module 2: Securing Intellectual Property

Module 3: Managing the Regulatory Environment

8:30AM Thu, Sep 24, Hawes Hall 101 (Classroom)

TOPIC

Pervasis Therapeutics

MATERIALS

 [Pervasis Therapeutics, Inc. \(807026\)](#)

EC Weeks 3 on Packet

 [Note on the U.S. Food and Drug Administration \(807050\)](#)

EC Weeks 3 on Packet

 [Pervasis Poll: Complete by 7:00 AM on the day of class](#)

ASSIGNMENT

1. What is your assessment of Vascugel's market potential?
2. In your opinion, what is the optimal clinical development strategy for Vascugel? What disease states would you target? Explain.
3. Do the poll.

8:30AM Fri, Sep 25, Hawes Hall 101 (Classroom)

TOPIC

Targanta Therapeutics

GUEST SPEAKERS



Mark W. Leuchtenberger, CEO



George A. Eldridge, CFO

MATERIALS



[Targanta Therapeutics: Hitting a Moving Target \(709002\)](#)

EC Weeks 3 on Packet

ASSIGNMENT


1. Do you think Skyline Ventures and Brookside Capital made a good investment in the Targanta Series C offering in January 2007? What is your assessment of the regulatory history of oritavancin? Do you think the FDA should approve the drug? Of the \$100 million that Targanta has in cash, assume that \$40 million will be spent in 2008 on normal business operations. Of the remaining \$60 million, how much would you hold in reserve and how much would you invest in the projects described in pages 11 and 12 of the case? Of the products described on pages 11 and 12, which ones would you fund in 2008?

8:30AM Wed, Sep 30, Hawes Hall 101 (Classroom)

TOPIC

A Father's Love: Novazyme Pharmaceuticals Inc.

GUEST SPEAKER

 Alan E. Walts

MATERIALS

 [A Father's Love: Novazyme Pharmaceuticals, Inc. \(603048\)](#)

EC Weeks 3 on Packet

 [A Managerial Perspective on Clinical Trials \(709033\)](#)

EC Weeks 3 on Packet

ASSIGNMENT

1. What is your assessment of Novazyme's clinical trial strategy?
2. How would you design Novazyme's clinical trial for its drug to treat Pompe's disease? Be as specific as possible with regards to trial size, patient selection criteria, number of sites, blinding and endpoints.
3. What are the other elements of Novazyme's strategy? How would you characterize and assess them?
4. What are the pros and cons of the offers from Genentech and Genzyme? Which offer would you accept? Genentech? Genzyme? Neither?
5. Do you think that John Crowley's personal association with Pompe's disease helps or hinders his abilities to assess his business alternatives?

8:30AM Thu, Oct 1, Hawes Hall 101 (Classroom)

TOPIC

Drug Testing in Nigeria

MATERIALS

 [Drug Testing in Nigeria \(A\) \(706033\)](#)

EC Weeks 3 on Packet

 [Drug Testing in Nigeria Poll: Complete by 7:00 AM on the day of class](#)

ASSIGNMENT

1. Briefly outline the benefits of pursuing the Trovan trials in Kano.
2. What are the greatest risks involved in pursuing the Trovan trials in Kano?
3. Do the poll.

8:30AM Wed, Oct 7, Hawes Hall 101 (Classroom)

TOPIC

Novasys

GUEST SPEAKER

Debra Reienthal, CEO, Novasys

End of Module 3: Managing the Regulatory Environment**Module 4: Managing Business Development**

8:30AM Thu, Oct 8, Hawes Hall 101 (Classroom)

TOPIC

Intuitive Surgical

GUEST SPEAKER

John Freund

MATERIALS

[Intuitive Surgical - Negotiating the Deal \(202094\)](#)

EC Weeks 3 on Packet



[Deal Proposal for Intuitive Surgical](#)

In-class handout

ASSIGNMENT

1. What is your assessment of this venture?
2. On a scale of 1 to 10 (1 = easy, 10 = virtually impossible), how hard do you think it is going to be for the parties to agree on a deal structure?
3. Read the Special Instructions that were distributed to you in class.
4. Fill out the deal you would propose (distributed in class and also available via link above)

8:30AM Thu, Oct 15, Hawes Hall 101 (Classroom)


TOPIC

Amylin Pharmaceuticals

GUEST SPEAKER

 Ginger Graham

MATERIALS

 Amylin Pharmaceuticals: Diabetes and Beyond (809011)
EC Weeks 3 on Packet

 [Amylin Poll Complete by 7:00 am on the day of class](#)

ASSIGNMENT

1. What are the main lessons you draw from Amylin's 18-year history?
2. How important has business development been to Amylin strategically and financially?
3. Assess Ginger Graham's performance as CEO of Amylin. What should her major objectives be for the next three years?
4. Should Amylin pursue the in-licensing of Leptin, which will require Ginger Graham to negotiate directly with Kevin Sharer?
5. Do the poll.

8:30AM Fri, Oct 16, Hawes Hall 101 (Classroom)

TOPIC

Direvo Biotech AG

MATERIALS



[Direvo Biotech AG \(804017\)](#)

EC Weeks 3 on Packet



[Direvo Biotech case exhibits](#)



[Direvo Assignment Spreadsheet](#)



[Direvo Poll: Complete by 7:00 AM on the day of class](#)



[Healthcare Entrepreneurial Process](#)



[Note on Biotech Business Development \(807032\)](#)

ASSIGNMENT

The Direvo case describes a young German biotech company and its early strategy of partnering to create molecules in the industrial enzyme industry. Now, with some success behind it and the prospect of a significant cash infusion, the management team must decide whether to alter that strategy, and if so, how.

Please see the "Direvo Biotech case exhibits" for a version of Exhibit 10a, and also the "Direvo Assignment Spreadsheet" for a version of the spreadsheet template referenced below -- both are posted to the course platform above this assignment.

1. What opportunities does Direvo have? What has it done to create them, and what choices must it now make if it wishes to exploit this opportunity set?
2. Using the data in the case and in **Exhibit 9**, evaluate the two possible market opportunities - pharma and industrial enzymes, as well as the potential business models available for each - "in-house" vs. "partner now". Calibrate the potential risks and rewards from each strategy. How does the Direvo process impact the potential risk and reward? How is it creating value? How does the drug development option compare with opportunities in the industrial enzyme sector? Note: Please use the decision tree approach to think about the odds of success and the potential payoffs for each of these options. Assume that the risk-free rate for euro denominated long-term government bonds was 5.1% at the time of the case. A version of an excel spreadsheet that can be used as a template for some of these calculations is posted above (see the "Direvo Assignment Spreadsheet" link). How do you think about the interplay between the market opportunity and the business model Direvo uses to pursue that opportunity?
3. As Direvo considers partnering, what factors should it evaluate in considering a partner? What are the advantages

Syllabus for Entrepreneurship & Venture Capital
in Healthcare

and disadvantages of having a customer/partner as an investor? What issues do you perceive, and how might you manage them?

4. COMPLETE THE POLL.

8:30AM Wed, Oct 21, Hawes Hall 101 (Classroom)

TOPIC

Proteus

GUEST SPEAKERS

Andrew Thompson, Chief Executive Officer, Proteus Biomedical Inc.



David O'Reilly, Senior Vice President of Corporate Development, Proteus Biomedical Inc.

MATERIALS

Proteus Biomedical: Making Pigs Fly (809051)

EC Weeks 3 on Packet

ASSIGNMENT

1. What is your assessment of Proteus? How do you explain the \$200 million pre-money valuation that they achieved in their Series D financing?
2. Evaluate the business development arrangements that Proteus made with its first product family, multi-sensor leads. Were those business development deals successful?
3. What is your assessment of the process Proteus undertook to identify opportunity areas for its IEM?
4. Should Andrew Thompson
 - a) accept the proposed deal with Janssen,
 - b) hold out for a more robust deal with Janssen or another pharmaceutical company, or
 - c) complete more milestones and then try to negotiate a more robust deal with pharmaceutical companies?

8:30AM Thu, Oct 22, Hawes Hall 101 (Classroom)

TOPIC

Generation Health

MATERIALS

[Realizing the Promise of Personalized Medicine](#)

EC Weeks 3 on Packet

End of Module 4: Managing Business Development**Module 5: Financing the Venture**

8:30AM Fri, Oct 23, Hawes Hall 101 (Classroom)

TOPIC

eClinicalWorks

MATERIALS

 [eClinicalWorks: The Paths to Growth \(807025\)](#)

EC Weeks 3 on Packet

 [McKesson: Wiring the Medical World](#)

 [eClinical Works Poll: Complete by 7:00 AM on the day of class](#)

  [Press Release](#)

ASSIGNMENT

1. What key factors differentiate eCW from other EMR companies in the healthcare IT market?
2. Describe how eCW's founders were able to bootstrap the company up until this point.
3. Do you think that eCW can achieve scale and reach >\$100 million in revenues with their current product offerings and pricing models, while remaining private? Why or why not?
4. Do you think eCW's current corporate structure and employee compensation plan will affect the company's prospects for growth? Why or why not?
5. Do the poll.

8:30AM Wed, Nov 4, Hawes Hall 101 (Classroom)

TOPIC

Conor Medsystems

GUEST SPEAKER

 Frank Litvack, MD

MATERIALS

 [Conor Medsystems \(804180\)](#)

EC Weeks 3 on Packet

 [Conor Medsystems Poll: Complete by 7:00 AM on the day of class](#)

  [NY Times Article](#)

ASSIGNMENT

1. How attractive is the opportunity that Conor Medsystems is pursuing?
2. How well have Litvack and his team done to date in managing the uncertainty inherent in pursuing the coronary stent opportunity? Please be specific on the actions that you either found effective or ineffective.
3. Do the poll.

8:30AM Thu, Nov 5, Hawes Hall 101 (Classroom)

TOPIC

Fred Khosravi and Access Closure

GUEST SPEAKER

 Fred Khosravi, Access Closure President and CEO

MATERIALS

 [Fred Khosravi and AccessClosure \(806044\)](#)

EC Weeks 3 on Packet

ASSIGNMENT

1. What is your assessment of Fred Khosravi's career and his record as a medical device entrepreneur?
2. What rules or generalizations, if any, about medical device start-ups can you draw from Khosravi's experiences?
3. What is your assessment of the Access Closure venture? Do you have any criticisms of how the venture has been managed to date?
4. Which of the three alternatives--sell now, wait a year then sell, or build a stand-alone company--do you favor? Why?

8:30AM Thu, Nov 12, Hawes Hall 101 (Classroom)


TOPIC

Vertex/CF

GUEST SPEAKER

 Josh Boger, CEO Vertex Pharmaceuticals

MATERIALS

 [Vertex Pharmaceuticals and the Cystic Fibrosis Foundation: Venture Philanthropy Funding for Biotech \(808005\)](#)

EC Weeks 3 on Packet

ASSIGNMENT

1. If you were Josh Boger, would you continue Aurora's CF program or would you shut it down? Explain your position.
2. If you were Bob Beall, would you continue your CF funding with Vertex or would you cut it off? Explain your position.
3. What are the advantages of foundation funding for biotech companies? What are the disadvantages?

8:30AM Fri, Nov 13, Hawes Hall 101 (Classroom)

TOPIC

Corporate Venture Capital at Eli Lilly

MATERIALS

 [Corporate Venture Capital at Eli Lilly \(806092\)](#)

EC Weeks 3 on Packet

 [Selected Data on the Financing of Healthcare Ventures](#)

ASSIGNMENT

1. What is the role of corporate venture capital?
2. What is your assessment of Lilly Ventures?
3. What should Darren Carroll do regarding the potential investment in Protagonist?
4. What other recommendations would you have for Darren Carroll?

End of Module 5: Financing the Venture

Module 6: Growing the Venture and Realizing Value

8:30AM Wed, Nov 18, Hawes Hall 101 (Classroom)

TOPIC

Calloway Labs

GUEST SPEAKERS

Arthur Levitan



Kim Mayyasi

MATERIALS

Calloway Laboratory: Pee for Profit (807040)

EC Weeks 3 on Packet

ASSIGNMENT

1. Why has Calloway been successful in the substance abuse screening business?
2. Should Calloway enter the pain medication abuse market? If so, how?
3. As a venture capitalist would you fund Calloway's entry to the pain market and buy \$5 million of shares directly from Arthur Levitan?

8:30AM Thu, Nov 19, Hawes Hall 101 (Classroom)

TOPIC

WuXi PharmaTech

MATERIALS

[WuXi PharmaTech \(806003\)](#)

EC Weeks 3 on Packet

ASSIGNMENT

1. What is your assessment of WuXi PharmaTech and its growth over the past four years?
2. Do you believe that WuXi will be able to achieve the results forecast in Exhibit 4?
3. Which of the three financing options would you recommend to Dr. Li: grow internally, raise foreign VC or PE, or raise funding domestically? Why?
- 4.

8:30AM Thu, Dec 3, Hawes Hall 101 (Classroom)

TOPIC

Primedica

8:30AM Fri, Dec 4, Hawes Hall 101 (Classroom)

TOPIC

Odyssey Healthcare

GUEST SPEAKER

 Wyc Grousbeck

MATERIALS

 [Odyssey Healthcare \(809052\)](#)

EC Weeks 3 on Packet

ASSIGNMENT

1. Is the evolution of hospice care in America typical of the way new service industries in healthcare develop? What are other examples?
2. What are the advantages and disadvantages for Odyssey of being a public company?
3. Would you advise Burnham to go public or consider being acquired?

End of Module 6: Growing the Venture and Realizing Value**Module 7: Conclusion**

8:30AM Wed, Dec 9, Hawes Hall 101 (Classroom)

TOPIC

Endo Pharmaceuticals (A)

MATERIALS

 [Endo Pharmaceuticals \(A\): From LBO to...? \(806064\)](#)

EC Weeks 3 on Packet

 [Endo Poll: Complete by 7:00 AM on the day of class](#)

ASSIGNMENT

1. What is your assessment of the process by which Endo Pharmaceuticals was created?
2. What is your assessment of Endo's long-term prospects? Specifically, what do you think Percocet's sales will be in 2003?

Syllabus for Entrepreneurship & Venture Capital
in Healthcare

3. Should Endo merge with Algos? Explain your reasoning.

8:30AM Thu, Dec 10, Hawes Hall 101 (Classroom)

TOPIC

Student Business Plan Presentations

ASSIGNMENT

Please read and study the first three plans and skim the remaining two. **For the business plan in which you have the most interest please come prepared with three questions for the potential entrepreneur(s).**

8:30AM Fri, Dec 11, Hawes Hall 101 (Classroom)

TOPIC

Final Lecture

MATERIALS

 [2009 Case Evaluation Poll](#)

 [EVCHC Fall 2009 Final Lecture](#)

ASSIGNMENT

1. Fill out the Key Learnings Worksheet distributed in class on Thursday.
2. Do the Case Evaluation poll (link above).
3. Remember to bring your laptop to class to do the Course Evaluation.

End of Module 7: Conclusion