

# Yale Biotechnology & Pharmaceutical Society

## History

In 1997, business students from the School of Management and graduate students from the Graduate School of Arts and Sciences founded the Yale Biotechnology Student Interest Group to encourage more discussion and interaction among Yale students from diverse disciplines who all shared a common interest in biotechnology and pharmaceuticals.

During these early years, the organization planned activities that brought students from various disciplines together and helped them learn more about fields relating to biotechnology and pharmaceuticals outside their areas of expertise.

As the organization matured, it started reaching out to the local and global communities and its growing alumni base in an effort to bring together everyone with an interest in biotechnology and pharmaceuticals.

Recently, the organization updated its name, mission, and vision to reflect its evolving role in the biotechnology and pharmaceutical community. It currently brings together over 1000 members and coordinates numerous activities aimed at promoting thoughtful discussion and constructive interaction in an effort to cultivate a well-educated and well-connected local and global community extending across the traditional specialties relating to biotechnology and pharmaceuticals.

The YBPS is managed by Yale students and post-doctoral fellows, with the help of an advisory board consisting of academic and industry leaders from the local community and beyond.

## Mission

We commit ourselves to promoting thoughtful discussion and constructive interaction among all people, universities, companies, organizations, and governments in the Yale-New Haven community and beyond with an interest in any and all aspects of biotechnology and pharmaceuticals, including research and development, medicine, business, law, and education.

## Vision

We envision a well-educated and well-connected local and global community extending across the traditional specialties relating to biotechnology and pharmaceuticals.

## **YBPS Equity Research Club**

<http://www.yale.edu/ybps/yerc.htm>

The YBPS Equity Research Club (YERC) aims to bring together MBA/graduate/medical students and postdocs, who have an interest in learning how to invest in biotech and pharma companies. The YERC works to bridge the gap between natural sciences and finance with a series of seminars and collaborative learning.

### **Events 2007-2008**

#### **10.10.07 Kickoff meeting.**

Introduction and Goals of the YERC. Structure of Company Valuation. Presentation of Tentative Schedule to club members. Suggested Reading Material.

10.24.07 Talk by Joe Citarella '08 on

#### **"Financial Statements and Accounting Principles".**

11.7 Company Pitch by Eitan Akiran, Andrey Antov and Pasquale Cirone.

**"Presentation of SGX Pharmaceuticals"** and recommendation to "hold" in our mock portfolio.

11.14.07 **"Participation in a Market Experiment at SOM"**, held by Panos Patatoukas, SOM PhD Candidate '10. During the experiment the members had to trade imaginary securities in real-time and gained hands-on trading experience.

12.5.07 Talk by Dani Verdis, PhD '98, former buy-side trader in Wall street on

#### **"The transition from Science to Wall Street".**

#### **2.06.08 "Stalla Financial Statement Analysis Workshop".**

2.20.08 Talk by Michael Steiner, financial advisor, Regent Atlantic LLC on

#### **"The Continuing Evolution of the Pharmaceutical Industry: Career Challenges and Opportunities".**

03.05.08 Talk by Adrian Garcia, MBA Candidate, '09

#### **"Valuation Methods and Principles: The Discounted Cash Flow Analysis Method".**

03.26.08 Talk by Panos Patatoukas, SOM PhD Candidate '10 on **"Garbage In – Garbage Out, or How to meaningfully implement DCF analysis"**.

#### **04.08 Company Pitches by members**

### **Further Activities**

#### **CFA Course at SOM offered by Stalla**

CFA Classes twice a week, 11 participants out of which 8 are current SOM Students

We are managing a **mock portfolio**, which can be viewed at:

[http://www.marketocracy.com/cgi-](http://www.marketocracy.com/cgi-bin/WebObjects/Portfolio.woa/ps/FundPublicPage/source=LpDcAcOoEhGjMfKIMaKiAbDd)

[bin/WebObjects/Portfolio.woa/ps/FundPublicPage/source=LpDcAcOoEhGjMfKIMaKiAbDd](http://www.marketocracy.com/cgi-bin/WebObjects/Portfolio.woa/ps/FundPublicPage/source=LpDcAcOoEhGjMfKIMaKiAbDd)

### **YERC Board:**

Zoe Cournia, Co-president, YBPS and Co-Director, YERC

David Harburger, Co-director YERC

Yong Pan, Co-director YERC

## YBPS “6<sup>th</sup> Annual Business of Biotech”

- Evening non-credit week-long seminar designed to give non-textbook information about starting companies. The seminar runs four evenings, 6pm-8.30pm at the School of Management Jan 28-31 2008.
- 1<sup>st</sup> hour taught by Constance McKee, Yale MBA, CEO of Manzanita Pharmaceuticals.
  - Basic concepts like business plans, business models, term sheets and financing strategies for life sciences companies.
- 2<sup>nd</sup> hour case studies from various high level speakers
  - Ron Burch, CEO, Cure Therapeutics
  - Kevin Rakin, CEO, Advanced Biohealing
  - Ronald Smith, Vice President, BristolMyers Squibb
  - Jonathan Lewis, CEO, ZioPharm Oncology
  - Robi Blumenstein, Managing Director, HighQ Foundation
  - Jim Dolan, Executive VP, Purdue Pharma
- Everyone in the Yale, YBPS and New Haven community is welcome.
  - 88 Registrants: 28% Industry, 26% Grad, 25% Undergrad, 14% Med, 7% SOM
  - Budget \$3,000: 1K travel, 1K food/drink, 1K printing/podcasting

<http://www.yale.edu/ybps/businessofbiotechnologyprogram2008.html>

## YBPS Consulting Outreach Program

update 031308

Coordinator: Juha Lauren ([juha.lauren@yale.edu](mailto:juha.lauren@yale.edu))

### Summary:

- Provides free consulting services for biotech/pharma companies nearby New Haven
- Company provides the project and makes the commitment to meet regularly with the team
- Consulting Outreach Program's coordinator assembles a team (~ 5 people) with diverse skill sets
- Team meets regularly over a period of ~4 months
- Final deliverable: data-driven recommendation for the client

### Benefits for the participants:

- Experience in consulting and biotech/pharma
- Networking
- Learning from teammates and from company's contact person

### Current activities:

- A team of 6 people working with Vion pharmaceuticals Inc. (New Haven, Science Park)
- Team has two SOM students, two postdocs from medical school, one PhD student (Biomedical Sciences) and one PhD student from School of Public Health
- Expected to complete their project in May, 2008
- New projects anticipated starting in September, 2008

# YBPS Technology Licensing Program

update 031808

Manager: H. Timothy Hsiao ([hsin-hao.hsiao@yale.edu](mailto:hsin-hao.hsiao@yale.edu))

## Summary:

- Program webpage: <http://www.yale.edu/ybps/technologylicensing.htm>
- We coordinate participation on real-world technology licensing projects and help equip members with transferable skills in business and law.
- Three functions:
  - 1) Technology Licensing Task Force -**  
A function that coordinates member participation on *pro bono* projects where clients may wish to sell (out-license) or acquire (in-license) new technologies.
  - 2) Tech Impact @ Yale -**  
A publication that reviews topics in biotech and pharmaceutical business, intellectual property, biomedical research activities, and related events.
  - 3) Technology Licensing Seminar Series -**  
Educational seminars that deliver training and networking opportunities in Intellectual Property / Licensing / Business Development.

## Benefits for the participants:

- Acquiring transferable skills in biotech/pharma business including market estimation, IP/competitive landscaping, valuation, and commercialization of novel technologies.
- Participating in real-world technology commercialization processes
- Appropriate experiences for participants who consider careers in business development, venture capital, and IP in the biopharmaceutical industry.
- Networking and learning from clients

## Recent activities:

- **1) Technology Licensing Task Force -**  
8 members (4 biomedical grad students/ 1 post-doc/ 1 research scientist/ 1 bioinformatics consultant/ 1 technician) on 1-on-1 internship with the Yale Office of Cooperative Research to assist the commercialization of Yale technologies. (Cost to YBPS: None)
- **2) Tech Impact @ Yale** (Editors: Jennifer Holtzman and Catherine Chen) –  
Two issues released so far (Cost to YBPS: None):  
This issue - <http://www.yale.edu/ybps/technologylicensing/TechImpact2008Mar16.pdf>  
Last issue - <http://www.yale.edu/ybps/technologylicensing/techimpactatyale.pdf>
- **3) Technology Licensing Seminar Series** (Coordinator: Charmaine Chan) -  
First seminar: "CEO-IP: Doing Good and Profiting From Your Creativity" (10/26/07, Place: A-48, School of Management), by Mr. David Kalow from the New York law firm Kalow & Springut LLP. (Cost to YBPS: Estimated to be about \$250 per seminar)

## Future plans:

- Projects from corporate sponsors on: marketing of proprietary technology services and platforms; technology search for in-licensing targets (Both directions may be well managed by SOM students who are interested in business development in the biopharmaceutical industry).
- Workshop on technology valuation: practicing to use analyses such as DCF, event/decision tree, Real Option Analysis, Monte Carlo analysis, to value local biotech start-ups and/or entrepreneurship proposals for references to local angel / VC investors who aim at non-publicly traded early-stage technology start-ups. (Ideal for SOM students who consider VC careers)
- Third issue of Tech Impact @ Yale expected to be released on Mar 16, 2009.
- Proposed future seminars on technology valuation methods (Ideal to be organized by SOM students who wish to network with local VC / angel investors) and IP landscaping.

## **Y50K Biotechnology Entrepreneurial Competition**

<http://www.yale.edu/ybps/y50kbiotechnologyentrepreneurialcompetition2008.htm>

The Y50K Biotechnology Entrepreneurial Competition is a collaboration with the Yale Entrepreneurial Society. It is an opportunity for teams of Yale graduate and professional students, post-doctoral fellows, faculty, and any members of the Yale Biotechnology & Pharmaceutical Society or the Yale Entrepreneurial Society to take an entrepreneurial idea and transform it into a viable company with a biotechnology focus.

### **What is the Y50K Competition?**

The Y50K, Yale's annual business plan competition, provides a year-long program of educational, networking, and mentorship opportunities for aspiring entrepreneurs, with the primary objective of new venture creation - getting great ideas out of the lab or dorm room and into the real world. Teams write business plans and compete for \$50,000 in cash.

### **Judging**

A panel of judges from the Yale and New Haven venture communities, including experienced entrepreneurs, venture capitalists, legal professionals, and patent expert reads the entries. Some general criteria used by industry, private investors, and venture capitalists in evaluating the attractiveness of new venture opportunities are:

- High growth potential
- Originality of any new technology
- Feasibility
- Market leadership potential
- Quality and breadth of team
- Well defined market opportunity
- Ability to withstand competition
- Written quality of the entry

### **Eligibility**

All full-time and part-time Yale students, staff, and faculty at all levels of education and from any department, registered in the current semester of the Competition, are eligible to enter. People that do not meet this requirement may join or form teams, provided that at least one of the principal contestants on the team is a current Yale student, staff, or faculty member. Teams are encouraged to seek the involvement of Yale faculty, alumni, post-docs, researchers, staff, students from other schools, and people from outside the Yale community. Entries must be the original work of entrants and may be entered by an individual or a multi-member team. The size of a team is not restricted, and neither is the number of entries submitted by a team or an individual. Teams that have already secured arrangements for capital from any source must disclose the amounts and sources clearly in their entries. The Judging Panel of the Y50K Competition reserves the right to disqualify any entry that in its judgment violates the letter or the spirit of the competition Guidelines.

**YBPS Chair for Y2K/Y50K Competition:** Allison Welsh

## Pharmaceutical Case Competition

<http://www.yale.edu/ybps/pharmaceuticalcasecompetition2007.htm>

The Pharmaceutical Case Competition is a competition in which teams of Yale graduate/professional students and post-doctoral fellows work together to solve a finance- and/or marketing-based pharmaceutical case and then present their solution to a panel of academic and industry judges. The winning team receives a prize at the dinner reception following the competition, during which all participants and judges relax, discuss the case, and network.

The case competition serves mainly as *a recruiting event for SOM students* and is sponsored by Roche and other participating companies.

### Participation:

1. The Pharmaceutical Case Competition is open to all Yale graduate and professional students, post-doctoral fellows, faculty, medical residents, interns, and fellows.
2. The Yale Biotechnology & Pharmaceutical Society reserves the sole right to disqualify participants based on violations of the Pharmaceutical Case Competition Rules.

### SOM Participation (2007):

8 teams in total, 36 participants, 11 current SOM students (participation list is attached).

### Competition:

1. Teams consist of 2-5 individuals. Each team must include one SOM student.
2. Once the case has been distributed, all case-related questions should be emailed to Yugita Gupta (yugita.gupta@yale.edu). The case-writing team will address all questions and respond to the team and/or all of the teams in an appropriate manner.
3. Participating teams will have 10 minutes to make their case recommendation to the judges.
4. The judges will have up to 10 minutes to ask questions.
5. The judges are unable to consider any other submission besides the case recommendation in Microsoft PowerPoint format.
6. The dress code for the competition is **business formal**.

### Pharmaceutical Case Competition 2006 in the SOM news:

Paul Sandoval '07, a chemist about to graduate from SOM, has personal insight into both the scientist's and the MBA's points of view. He wrote the case for last fall's YBPS Pharmaceutical Case Competition, teams for which included students from a number of Yale's graduate and professional schools. "Many students didn't find working together a smooth process," says Sandoval. "That's one of the reasons we hold the case competition, to get scientists and business people working together and understanding each other, so they can see what it's going to be like in the real world and learn to bridge that gap."