Venture Capital 101: A Primer for Academic Entrepreneurs

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Overview

VC Overview - Fund organization, compensation, life cycles

Capital Formation - Funding sources, funding options

Making the Pitch - Ideal pitch decks, how to approach VCs

Evaluating Investments - Due diligence and how VCs make decisions
VC Overview
VC Fund Organization Basics

GENERAL PARTNERS (GPs)
- GPs are the “Venture Capitalists” and they raise the capital from LPs, manage the funds, and make investment decisions
- GPs are assisted by Principals, VCs, Associates, and Analysts who do the ‘heavy lifting’

VENTURE CAPITAL FUND
- GPs raise a fund from Limited Partners (investors) based on a unique strategy, expertise in a sector, investment track record
- Fundraising takes months to a year plus

LIMITED PARTNERS (LPs)
- LPs provide capital as needed (capital calls)
- Typical venture LPs include Insurance Companies, Endowments, Pensions, and HNWIs
- 5-10% of a portfolio is allocated to alternative investments, including venture, which are illiquid, riskier assets with higher return potential
VC Compensation & Economics

MANAGEMENT FEES
- GPs receive an annual MANAGEMENT FEE, which is a percentage of total capital committed to the fund
- Typical fees are 2-2.5% (i.e. on a $100M fund, $2-2.5M/year)
- MANAGEMENT FEES are used for fund administration (salaries, operations, and everything else)

CARRIED INTEREST
- LPs receive all returns (profits from exits) until 100% of committed capital, plus interest (often 6-8%), is returned to LPs
- Thereafter, profits are split 80% to LPs and 20% to GPs
  - the 20% going to GPs is called “Carried Interest”
VC Firm Life Cycle

**FUND LIFE**
- Funds have 10 year lives, often able to extend for 2 years, after which they are liquidated
- Investments are typically made in years 1-4 allowing investments to mature and exit within the 10 year fund life, referred to as the Investment Period
  - Investments requiring >4 years to mature and exit are likely to be made only in the first few years of the Investment Period

**INVESTMENTS**
- Funds typically reserve $2-3 for every $1 they invest for future rounds of investment in each company
  - if a fund invests $2M in an early round, it will reserve $4-6M for follow-on rounds

**SUBSEQUENT FUNDS**
- Funds will typically raise additional capital, a new fund, once 80% of capital is committed and reserved
- VCs are motivated to raise subsequent funds to make new investments and earn additional management fees/greater potential for upside on carried interest
Capital Formation
Funding Sources

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>STRATEGIC</td>
<td>GROWTH</td>
</tr>
<tr>
<td>VENTURE CAPITAL</td>
<td>RAPID SCALING</td>
</tr>
<tr>
<td>CROWDFUNDING</td>
<td>MARKET TRACTION</td>
</tr>
<tr>
<td>ANGELS AND ACCELERATORS</td>
<td>PROOF OF CONCEPT</td>
</tr>
<tr>
<td>VENTURE PHILANTHROPY</td>
<td>PRE-FUNDED STARTUP</td>
</tr>
<tr>
<td>FRIENDS AND FAMILY</td>
<td>SCIENCE PROJECT</td>
</tr>
<tr>
<td>GRANTS</td>
<td></td>
</tr>
</tbody>
</table>
The Likelihood of Getting your Startup Funded by a VC

Considered: 28%
Met management: 36%
Reviewed with Partners: 48%
Exercised due diligence: 35%
Offered term sheet: 59%
Closed: 59%

Source: “How Do Venture Capitalists Make Decisions?”
Know Your Investor: VCs Invest at Different Stages (Life Science)

- **Company formation**
- **Early pre-clinical**
- **IND enabling / IND-ready**
- **Early clinical**
- **Late clinical**
- **NDA / PMA / Commercial**

Note: These are examples. There are many more VCs and there are always nuances.
Know Your Investor: VCs at Different Stages (Tech)

Institutional

- Company Formation
- Prototype
- Traction
- Product Market Fit
- Scale & Growth

Strategic

Note: These are examples. There are many more VCs and there are always nuances.
Making the Pitch
VC By the Numbers

The majority of startups, and most academic startups, do not require and will not get venture capital

VCs look at 100s of businesses for one investment

OUP tracks ~6,000 companies yet will only make ~40 investments out of our current fund - that’s an acceptance rate of <1%
Initial Interactions & Pitch Decks

VCs receive MANY pitch decks

• The cliché is true - you only get one chance to make a first impression
• Ideally, your introduction to potential investors would come from one of their trusted friends or advisors
• Make your initial interactions (phone call, pitch deck, executive summary) clear, concise and compelling:
  – Who you are
  – Data justifying your enthusiasm and commitment and why data are compelling
  – Addressable market and size
  – Comparable companies as evidence of exit value
  – Funding and accomplishments to date
  – Use of proceeds of financing

Deals at this early stage are often “triaged” so that VCs can quickly identify the most attractive opportunities

• These deals will move to a phone call or pitch presentation
A Pitch Deck to Impress Investors

1. Elevator Pitch
   - Define your company and what it does
   - What are you seeking from investors?

2. Leadership & Boards
   - Background of executives, founders, advisors

3. Key Data Slides
   - Key experimental results
   - Exactly where you are at in the product/service development process
   - Next once you secure financing

4. Pipeline / Products Slides
   - When you will accomplish what in the future

5. Competition
   - What’s on the market? What previously failed?
   - What’s in the pipeline?
   - How does your product fit into the competitive landscape?

6. Capital
   - What capital are you seeking, and use of proceeds

7. Go-To Market Strategy
   - Identify importance of your unique economics early on
   - What will sales process look like?

8. Milestones
   - Tie the financing / capital needs to the operational goals
   - Plan for multiple rounds and include on this slide

9. Ask
   - Use of Funds
   - What are you raising?

10. Summary
    - Summary of opportunity
Practical Suggestions for Pitching

Do not hide anything substantive; it won’t stay hidden for long
  • You will lose credibility
  • Your lack of transparency and forthrightness will be shared with others

Follow good presentation guidelines
  • Be clear, concise and compelling
  • Do not over populate / over complicate slides

Pause to allow for questions

When you do not know an answer, say so
  • If you can find out the information, let the questioner know you will get back to
    them with the information following the presentation

REMEMBER! You may be an expert on your company and the technology, but this may be the first time an investor is seeing this
Lessons Learned about Raising Capital

Targeting investors
- Target investors whose investment strategy (sector), approach and availability of funds fit the company’s stage and future financing plans
- Build a diversified investor base

Running the process
- Unless you’re a ‘rock star’ with prior entrepreneurial success, fund raising can be challenging, potentially grueling and long process
- VCs say “no” far more often than “yes”
- Early stage companies often represent new stories, technologies and approaches
  - Multiple meetings are likely to be needed
  - Provide potential investors sufficient time to vet you, the science and the opportunity

Private placement agent may be used to identify potential investors and arrange meetings, but investors will want to work directly with founders
- Pros: can run an efficient process and identify potential investors
- Cons: cost; founders will still need to be personally involved
Evaluating Investments
Evaluating Risk and Opportunity

due diligence

Definition of DUE DILIGENCE
1: the care that a reasonable person exercises to avoid harm to other persons or their property
2: research and analysis of a company or organization done in preparation for a business transaction (as a corporate merger or purchase of securities)

First Known Use of DUE DILIGENCE
1877

Other Business Terms
amortize, caveat emptor, clearinghouse, divest, emolument, green-collar, marque, overhead, perquisite

Is this a good idea? Is this a good investment? Is this the best team?
The Diligence Disconnect

Entrepreneurs and investors take different approaches:

Entrepreneurs

Getting to **YES**

Investors

Getting to **NO**
Most Important Factor for Investment Selection (%)

Source: “How Do Venture Capitalists Make Decisions?”
A Good Idea is Not Always a Good Investment

“It works, but is it scalable?”
Key Areas of Diligence

**Tech**

**Team**

**Market Opportunity**

IP  Competition  Technology  Capital Structure & Exit Analysis

**Life Science**

**Team**

**Science and Clinical Data**

IP  Competition  Market Opportunity  Regulatory & Reim.  Capital Structure & Exit Analysis
Betting on the Jockey

"Horse five to win, unless they change the jockey."
## Personal Characteristics of a Great CEO

### VISION
- Drive to be the leader in the space (2nd place isn’t acceptable)
- Thinking high level, but taking care of the details

### REALISTIC/MODEST
- CEOs aren’t expected to have every skill necessary to build out a company
- The best CEOs identify what they lack and will hire better people around them

### COMMUNICATION
- Build and motivate an internal team
- Sell the vision externally - communicate succinctly and be able to sell

### LOW AND HIGH EGO
- Unstoppable desire to disrupt the incumbents and push through hiccups
- Stepping aside for the right person

### ADAPTABILITY
- See what’s coming before everyone else and positions to take advantage of it
- The quicker CEOs admit they were wrong, the faster they can pivot
Key Questions on the Team

What’s their track record?
  • Have they done this before? Have they been successful?
  • Is their skill set relevant for this company?
  • What skills do they lack?

Do they have the right plan and priorities for the company?
  • Can they clearly articulate those goals to others?
  • Can they hire the right people to accomplish those goals?
  • Will they be able to raise additional capital if necessary?

Are they easy to work with?
  • Is there a personality fit?
  • Are they a team player?
  • Are they receptive to feedback and criticism?
  • Are they trustworthy and intellectually honest?

Reference calls with former employees, board directors, etc.
Background checks
Validating the Science

What do they think the product actually does?
- Deep dive on mechanism of action
- What target(s) does this drug bind to? Where does it bind on those targets? What effect does that binding have on target function?

Does the product actually do what they say it does?
- What evidence do they have to support their claims?
- How valid are their experimental models? Are they predictive? Are there other models that would be better?

Has this been tried before?
- Why is this better/different?

Exhaustive review of all published literature
Review biology and data with experts
Talk with scientific founder
Validating the Clinical Data

Evaluating Phase 1 data - is it safe?
• What’s the maximum tolerated dose?
• What adverse events were seen?
• Any efficacy signal?
• Has the Phase 2 dose been established?

Looking for proof-of-concept in Phase 2
• What patient population is being studied?
• How easy will it be to recruit patients?
• What are the relevant endpoints? Are they approvable endpoints?
• How well is the study powered?
• Will the outcome of this study inform continued development in Phase 3?

Exhaustive review of all published literature
Review study design & clinical data with key opinion leaders
Evaluating the Market

Determining market size:
- What is the total addressable market?
- What’s the actual target market?
- How many of those target customers will use the product?

How much can you charge?
- Who is paying for your product?
- Can you price at a premium to other products?

What are the barriers to adoption?
- Is this a want to have or a need to have?
- What are the incentives for the customer to purchase?
- How easy will it be for customers to switch products?

Admittedly, it’s a niche market

Reviewing the Commercialization Plan

How accurate are their forecasts?
- Review all assumptions, are they reasonable?

How are they going to reach their customers?
- What’s the call point?
- Direct sales vs. distributor?
- How will they communicate the value prop of their product?

Who are the winners and losers?
- What are the incentives/disincentives for each party involved with the use of this product?

<table>
<thead>
<tr>
<th>Laparoscope accessory device to improve visibility during surgery</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Winner:</strong></td>
</tr>
<tr>
<td>- Physician (improved visibility),</td>
</tr>
<tr>
<td>- Patients (potential for improved outcomes and reduced complications)</td>
</tr>
</tbody>
</table>
Operational Considerations

Manufacturing and/or service issues

• Will things be done in-house or outsourced?
• Do they have the capacity to do what they need to do now?
• Is it scalable?
• What are the supply chain risks and how can they be minimized?
• What are the COGS now? What will they be at high volume?
# The Two Stages of IP Due Diligence

<table>
<thead>
<tr>
<th>Purpose:</th>
<th>Example Activities/Questions:</th>
<th>Conducted By:</th>
</tr>
</thead>
</table>
| **1st Stage:** Early in Diligence | Verify there are no “red flags” before moving forward in the diligence process | • What types of patents have been filed and what is their status?  
• When do those patents expire?  
• Are there trademarks or trade secrets?  
• Review of any licenses | VC Firm |
| **2nd Stage:** Late in Diligence | In depth evaluation of IP and analysis of any potential conflicts | • Evaluate the strength of the claims made and their alignment with business goals  
• Look for ownership conflicts (i.e. do you own what you think you own?)  
• Freedom-to-operate (are you potentially infringing on someone else’s patents?) | IP Professional |

## Why are there two stages?

- In depth diligence by an IP professional is costly
- VCs do not want to incur such costs until they know they are likely to invest; the 2nd stage of IP diligence often occurs after a term sheet has been signed
- The lead VC will often pass the costs of the legal fees on to the company up to an amount as specified in the term sheet
Getting to Market and Getting Paid

What regulations and regulatory bodies will influence success?
  • Who is the relevant regulatory body?
  • What is the regulatory path and what will be required for approval?
    • Example: FDA 510(k) vs. PMA - big difference in time and cost
  • Are there any financial regulations to consider for the industry? Any provider regulations?
  • What will the regulatory requirements be going forward and will the company be able to meet those requirements?

Who is going to pay for your product?
  • If in the healthcare space, will this require a reimbursement code? Is there an existing code or does a new code need to be created?
Who Else is Out There?

Who already has a product in this space?
- How do they compare? What’s better? Worse?

Who is developing a product in this space?
- Where are they in development?
- Will they beat you to market?
- How do they compare? What’s better? Worse?

<table>
<thead>
<tr>
<th>Company</th>
<th>Drug</th>
<th>MOA</th>
<th>IPF Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fibrogen (FGEN)</td>
<td>FG-3019</td>
<td>Connective tissue growth factor (CTGF) inhibitor</td>
<td>Ph2 (data 2H16)</td>
</tr>
<tr>
<td>Biogen</td>
<td>STX-100</td>
<td>Integrin αvβ6 inhibitor</td>
<td>Ph2 (data mid-2015)</td>
</tr>
<tr>
<td>Roche</td>
<td>Lebrikizumab</td>
<td>IL-13 inhibitor</td>
<td>Ph2 (data 2H16)</td>
</tr>
<tr>
<td>Bristol Myers (BMY)</td>
<td>BMS-986202</td>
<td>Lysophosphatidic acid receptor 1 (LPA1) antagonist</td>
<td>Ph2 (data late 2015/early 2016)</td>
</tr>
<tr>
<td>Sanofi (SNY)</td>
<td>SAR156597</td>
<td>IL4/IL13 bispecific antibody</td>
<td>Ph2</td>
</tr>
<tr>
<td>Gilead (GILD)</td>
<td>Simtuzumab</td>
<td>Lysyl Oxidase-like 2 (LOXL2) inhibitor</td>
<td>Ph2</td>
</tr>
<tr>
<td>Bristol Myers (BMY)</td>
<td>TD139</td>
<td>Galectin-3 inhibitor</td>
<td>Ph1/2a (data late 2015/early 2016)</td>
</tr>
<tr>
<td>GSK</td>
<td>GSK2126458</td>
<td>PI3 kinase/mTOR inhibitor</td>
<td>Ph1 (data mid-2015)</td>
</tr>
<tr>
<td>Moerae Matrix</td>
<td>MMI-0100</td>
<td>Mitogen activated protein kinase activated protein kinase II (MK2) inhibitor</td>
<td>Ph1</td>
</tr>
<tr>
<td>Sheppard Newco (TRV)</td>
<td>AvB1 antagonist</td>
<td>Inhibiting activation of TGFb</td>
<td>Preclinical</td>
</tr>
<tr>
<td>Roche</td>
<td>ITMN-10534</td>
<td>Lysophosphatidic acid receptor 1 (LPA1) antagonist</td>
<td>Preclinical</td>
</tr>
<tr>
<td>Genkyotex</td>
<td>GKT137831</td>
<td>NOX1/4</td>
<td>Preclinical</td>
</tr>
</tbody>
</table>
Valuation & next rounds

- The belief is that VCs want the lowest valuations, and entrepreneurs want the highest.
  - False

**Venture Capitalist**
VCs don’t want to dilute entrepreneurs out and reduce their incentives

**Entrepreneur**
Entrepreneurs want a reasonable valuation to set reasonable milestones

Both parties want to set reasonable milestones.
What could an exit look like?

Compile a list of all deal comparables (aka comps):

<table>
<thead>
<tr>
<th>Company Type</th>
<th>Year</th>
<th>Company</th>
<th>Acquirer</th>
<th>Therapeutic Area</th>
<th>Phase</th>
<th>Upfront</th>
<th>Milestones</th>
<th>Deal Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Divestment</td>
<td>2015</td>
<td>AstraZeneca/ Caprelsa</td>
<td>Genzyme</td>
<td>MTC</td>
<td>Approved, Revenue Generating</td>
<td>$165</td>
<td>$135</td>
<td>$300</td>
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<tr>
<td>Divestment</td>
<td>2014</td>
<td>AstraZeneca/ Myalept</td>
<td>Aegerion</td>
<td>Generalized lipodystrophy</td>
<td>Approved</td>
<td>$325</td>
<td></td>
<td>$325</td>
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<tr>
<td>Multi-asset</td>
<td>2014</td>
<td>Lumena</td>
<td>Shire</td>
<td>Primary Biliary Cirrhosis Primary Sclerosis Cholangitis</td>
<td>Ph2</td>
<td>$260</td>
<td>+milestones</td>
<td>$260 +milestones</td>
</tr>
<tr>
<td>Multi-asset</td>
<td>2015</td>
<td>Hyperion</td>
<td>Horizon Pharma</td>
<td>Urea cycle disorders</td>
<td>Approved, Revenue Generating</td>
<td>$1100</td>
<td></td>
<td>$1100</td>
</tr>
<tr>
<td>Multi-asset</td>
<td>2014</td>
<td>AesRx</td>
<td>Baxter</td>
<td>SCD</td>
<td>Ph2</td>
<td></td>
<td>Undisclosed</td>
<td></td>
</tr>
<tr>
<td>Platform</td>
<td>2015</td>
<td>Synageva</td>
<td>Alexion</td>
<td>LAL Deficiency; MPS IIIB Calcification; HS; Fabry; Pompe</td>
<td>BLA Review, Ph 1/2, PC</td>
<td>$8400</td>
<td></td>
<td>$8400</td>
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<tr>
<td>Single Asset</td>
<td>2015</td>
<td>Tripex Pharmaceuticals</td>
<td>Raptor</td>
<td>P. aeruginosa CF</td>
<td>Approved</td>
<td>$68.4</td>
<td>$350</td>
<td>$418.4</td>
</tr>
<tr>
<td>Single Asset</td>
<td>2015</td>
<td>Meritage</td>
<td>Shire</td>
<td>Eosinophilic esophagitis</td>
<td>Ph3 ready</td>
<td>$70</td>
<td>$175</td>
<td>$245</td>
</tr>
<tr>
<td>Single Asset</td>
<td>2014</td>
<td>Chatham</td>
<td>Baxter</td>
<td>Hemophilia B</td>
<td>Ph2</td>
<td>$70</td>
<td>Undisclosed</td>
<td></td>
</tr>
<tr>
<td>Single Asset</td>
<td>2015</td>
<td>Trophos</td>
<td>Roche</td>
<td>Spinal muscular atrophy</td>
<td>Ph3 ready</td>
<td>$139</td>
<td>$406</td>
<td>$545</td>
</tr>
<tr>
<td>Single Asset</td>
<td>2015</td>
<td>Scioderm</td>
<td>Amicus</td>
<td>Epidermolysis bullosa</td>
<td>Ph3 ready</td>
<td>$229</td>
<td>$618</td>
<td>$847</td>
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<tr>
<td>Single Asset</td>
<td>2015</td>
<td>Crealta Holdings</td>
<td>Horizon Pharma</td>
<td>Refractory gout</td>
<td>Market, Revenue Generating</td>
<td>$510</td>
<td></td>
<td>$510</td>
</tr>
<tr>
<td>Single Asset</td>
<td>2014</td>
<td>Prosensa</td>
<td>BioMarin</td>
<td>DMD</td>
<td>Ph3</td>
<td>$680</td>
<td>$160</td>
<td>$840</td>
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<tr>
<td>Single Asset</td>
<td>2013</td>
<td>Zymenex</td>
<td>Chiesi</td>
<td>Alpha-mannosidosis</td>
<td>Ph3</td>
<td></td>
<td>Undisclosed</td>
<td></td>
</tr>
</tbody>
</table>
Capital structure review

How much money has been raised?
- What milestones were accomplished with that capital?
- Did they meet their deadlines?
- Review the cap table

Is this a strong syndicate of investors?
- How much do they have reserved for this investment?
- What’s the stability/timeline of their fund?
- Who are the previous investors?
- Will they invest in this financing?

What is the purpose of this financing?
- Detailed review of use of proceeds. Is the right amount of money being raised to get to a value inflection point? If so, quantify the value being created
- What’s the pre-money valuation? Is it the right valuation?

A clean, straightforward capital structure is optimal
Valuation

The quickest way to approach valuation is to work backwards. There’s a $10 million raise. What’s the pre-money valuation?

This example is highly simplified, as prior ownership, future financings, warrants, options, etc. can all effect ownership and return multiples.
The Investment Memo & Investment Committee

What?
- Internal document to evaluate the deal dynamics, company history, interactions and technology

Why?
- Uncover red flags that will require further diligence
- Allows entire team to raise objections to the deal

When?
- Work-in-progress continually updated
- Final investment memo is typically presented to investment committee for approval to invest

Who?
- Analysts and associates for partners’ review
- VC fund’s investment committee reviews

The Final Step - presenting to the investment committee
Crossing the finish line

Although variable from firm to firm, the final step often involves presenting the investment memo to the VC’s investment committee

• The committee can be a select group of senior partners or may involve a larger team
• This is an opportunity for others that have not been as closely involved in the deal to ask questions and get comfortable with the investment

The final steps...

• Submit and sign a term sheet (if that hasn’t been done already)
• Supporting documentation is drafted and remaining terms are negotiated
• Get final signatures and wire the money!
Thank You

Summary
Osage University Partners (OUP) invests in startups that have licensed technologies from universities and research institutions. OUP has partnered with over 100 institutions to invest in pioneering technologies and visionary entrepreneurs targeting large market opportunities. The Fund invests across a range of technology sectors and company stages, and typically co-invests with other leading venture funds.

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