Company Valuation
Part II: Investor Perspective

BioBoot Camp 2013

http://www.cobioscience.com/events-calendar/bioboot-camp-1
We:

- been on both sides of the Valuation Question: started and funded, bought, sold and invested.
- over 30 years healthcare, medical device, bio-pharma experience, technology and medical IT, business development, finance, and venture investor.
- been founding partners in orthopedic, biologics, biotech, bio-pharma and cardiovascular company’s.
- associated with a FINRA registered Broker-Dealer for any security transactions.
- served as Executive Management of Medical and Healthcare companies both private and public, and early stage, small and mid-cap companies.
- served as Chairman and Director of public and private companies.
- serve as Executive Advisors to Healthcare and Technology Companies.
- bring strong network of Board and Advisors along with strategic relationships.
Step 1: Why invest in your venture? They want to see an opportunity that has:

- Significant Market size both domestic and rest of the world (ROW)
- An experienced Management team
- Advisor experience both business and technology
- An unmet market need and compelling value proposition – Why will a customer buy this!
- A compelling and demonstrable Competitive advantage against current products
- Platform technology
- High Barriers to entry for competition – Is there a STRONG IP POSITION?
- Closer to market launch the better
- Clear path to an Exit Strategy

Investors set a mental hurdle of:

“Can this investment return 10x my money? If yes, then what valuation will result in my achieving a 10x return.”
Investor Due Diligence Needs

Step 2: Are you prepared? Investors will want …

- **Legal & Financial Documents**
  - Articles of Incorporation, Operating agreements, metrics, etc.
  - Financial documents / tax documents / audit reports / liabilities
  - Compensation Plans, Stock structures and options and Cap Table
  - **Detailed financial model** with projections and forecasts: don’t forget detailed assumptions
  - **IP portfolio**

- **Company Documentation**
  - Management Resumes / Organization / Corporate Structure
  - Company History and to-date-funding details and valuation assumptions
  - Milestones met and missed

- **Market/Product Information**
  - Detailed Market analysis and competitive information
  - **VALUE PROPOSITION;** superior value to your customers
  - Status of product(s) developed / prototyped / feasibility
  - Detailed business, development, sales and marketing plan
  - Detailed regulatory plan and status US and ROW
  - Commercialization plan, including reimbursement strategies
  - Luminaries involved with your company and references
  - Customer and client feedback
Step 3: How much and type of funding do you require to achieve the next significant milestones and a boost in Valuation:

- Where is the company in its life cycle: seed, start-up, pre-clinical, prototype, pre-sales, technology risk, market risk, post FDA, sales, cash flow, growth

- Do you have a detailed plan that shows the history of previous use of funds?

- Do you have a detailed plan showing:
  - the required funds;
  - the use of those funds; and
  - a detailed map illustrating milestones to be accomplished with the funds

- Time and accomplishments to next round of funding requirements
Building Value

**Discovery**
- Inventor interview
- IP analysis
- Business strategy(s)
- Milestone plan
- Industry fit
- Market size potential

**Analysis**
- Business scenarios
- Proof of concept
- Regulatory strategy
- Medical need
- Alternative solutions
- Reimbursement
- Fit in practice
- Funding requirement
- Time to market

**Plan & Implementation**
- Ex Summary
- Market opportunity
- State of the art
- Competitive offerings
- Product / Services
- IP
- IP enhancement
- Regulatory
- Marketing
- Manufacturing

**Network Investigation**
- Medical luminaries
- Financial analyses
- Investment bankers
- Venture capitalists
- Alliance partners

**Commercial Venture Established enterprise**
- Virtual / Actual Mgt
- Funding
- Staffing
- Operations
- Clinical regulatory
- Marketing
- Commercialization
Step 4: The type of funding that might be required and from whom:

- **Types**
  - Equity Funding – minority or majority ownership, Common or Preferred
  - Debt – Secured, unsecured, convertible
  - Line of Credit
  - Accounts Receivable Financing / Asset based lending
  - Joint Ventures / Strategic Partnerships
  - Combination(s) of the above
  - IPO

- **Sources**
  - Friends and Family
  - Angels
  - Family Offices
  - VC’s
  - Private Equity
  - Strategic Partners
  - Distributors / customers / vendors
Valuation should **NOT** be in your initial conversations – **sell the opportunity first!**

- Relationships are key as these relationships will be long-term
- A true partner will want to achieve the same goals

**Now we are ready to talk valuation:**

- Although there are standard valuation methods for determining the value of growing companies *with* product revenue, how do start-up and preclinical stage biotechnology companies *without* product revenue value their organization?

- For valuation purposes, bio/medical technology companies should be divided into two major groups:
  - **Early Stage** - Seed, Start-up, Preclinical Stage, Pre-FDA organizations
  - **Latter Development Stage or Revenue Generating Companies** - an FDA approved IND (Investigational New Drug application), companies with a product in human clinical trials, approved Pre Market Approval (PMA) application or medical device companies with products with 510(k) or CE clearance.
Each of these methods can provide differing valuations but the best valuation is an estimate determined by utilizing all three methods.

1. **Valuation by Risk-Adjusted Discounted Cash Flow (rDCF):** This is determined by first estimating the company’s future revenues minus the costs associated with generating those revenues, then discounting these by an appropriate interest rate. This is called a *Discounted Cash Flow* (DCF) or *Net Present Value* (NPV) of those future earnings.
   - The value of those future earnings is discounted again by the risk of successfully completing Phase I, II, III and receiving FDA approval. The final value is called a Risk-Adjusted DCF.

2. **Valuation by Public and Private Exit Valuations:** Find the prices paid for mature organizations in your sector during an exit such as an acquisition or an Initial Public Offering (IPO). An appropriate adjustment to this price is then made based upon the return multiples required by a typical institutional investor.

3. **Valuation by Comparables:** similar organizations in similar sectors at similar development stages that have been recently valued by a financing round. Although this is generally not public information, there are available venture capital resources (e.g. VentureSource, Hoovers etc for fees).
For **Early Development Stage Companies**, you can use all the same methods *except* the rDCF method for the following reasons:

- many more financial and scientific uncertainties that weaken the ability to confidently utilize the rDCF method.
- lack certainty of successfully reaching the next stage of development
- uncertainty in securing adequate funding to continue progress toward the clinical testing and regulatory phases.
- the cost, risk and time associated with the research and development phase of any one particular biotechnology product is uncertain.

More importantly, Venture Capital does not rely on rDCF for valuation of Early Development Stage companies.

However, once a company receives FDA approval to begin human clinical testing there is a better understanding of the development path and the risks associated with these products reaching commercialization.
The most common method for valuing the latter stage companies is using rDCF. rDCF analysis uses the concepts of the **time value of money**. All future cash flows are estimated and **discounted** (based on estimation of risk) to give their **present values** (PVs) —

- the sum of all future cash flows, both incoming and outgoing, is the net present value (NPV), which is taken as the value or price of the cash flows in question. Using DCF analysis to compute the NPV takes as input cash flows and a discount rate and gives as output a price.

### DCF Valuation

**Company:** ABC

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenues</th>
<th>COGS</th>
<th>Op Expenses</th>
<th>Depreciation</th>
<th>EBIT</th>
<th>Tax Rate</th>
<th>Working Capital</th>
<th>CapEx</th>
<th>Depreciation</th>
<th>Working Capital</th>
<th>FCFF</th>
<th>Discount Factor</th>
<th>NPV</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>$206,910</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>38%</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$128,284</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>$213,117</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>38%</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$132,133</td>
<td>0.926</td>
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</tr>
<tr>
<td>2015</td>
<td>$219,511</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>38%</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$136,097</td>
<td>0.857</td>
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<tr>
<td>2016</td>
<td>$262,107</td>
<td></td>
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<td></td>
<td>38%</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$162,507</td>
<td>0.794</td>
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<tr>
<td>2017</td>
<td>$269,971</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>38%</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$167,382</td>
<td>0.735</td>
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</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>NPV</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>$128,284</td>
</tr>
<tr>
<td>2014</td>
<td>$122,345</td>
</tr>
<tr>
<td>2015</td>
<td>$116,681</td>
</tr>
<tr>
<td>2016</td>
<td>$129,003</td>
</tr>
<tr>
<td>2017</td>
<td>$123,031</td>
</tr>
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</table>

**NPV:** $619,344
### Valuation by Public and Private Exit Valuations

<table>
<thead>
<tr>
<th>Target</th>
<th>Sector</th>
<th>Acquirer</th>
<th>Acquisition Price</th>
<th>Company Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epicor Medical, Inc</td>
<td>Ultrasound (HIFU) devices for the surgical ablation of cardiac tissue</td>
<td>St Jude Medical</td>
<td>$200mm ($185 + $15mm)</td>
<td>510(k) approval of device, pre-revenue</td>
</tr>
<tr>
<td>Spinal Dynamics Corp</td>
<td>Artificial cervical disc</td>
<td>Medtronic</td>
<td>$269.5 mm</td>
<td>Clinical Trials</td>
</tr>
<tr>
<td>Percusurge Inc</td>
<td>Removal of embolic debris</td>
<td>Medtronic</td>
<td>$225mm</td>
<td>Clinical use in , pre-revenue in</td>
</tr>
<tr>
<td>Endocardial Solutions, Inc</td>
<td>Navigation of catheters used in AF ablation and other procedures</td>
<td>St Jude Medical</td>
<td>$272mm</td>
<td>$37mm revenues in 2003, Net loss of $4.3mm</td>
</tr>
<tr>
<td>CLOSURE Medical Corporation</td>
<td>Biomaterial-based medical devices for wound closure</td>
<td>Johnson &amp; Johnson</td>
<td>$370mm</td>
<td>$40mm sales in 2004, Net income of $9.9mm</td>
</tr>
<tr>
<td>Percutaneous Valve Technologies</td>
<td>Percutaneous approach for delivering heart valves</td>
<td>Edwards Life Sciences</td>
<td>Approx $155mm</td>
<td>Product development, pre-revenue, clinical studies</td>
</tr>
<tr>
<td>Angiolink Corp</td>
<td>Wound closure solutions for vascular procedures</td>
<td>Medtronic</td>
<td>Withheld</td>
<td>Pre-product launch, pre-revenue. Raised $21mm in VC funding by 2003</td>
</tr>
</tbody>
</table>

BioBoot Camp 2013
Obvious:

- Economic Environment
- Market Environment and Opportunity
- Milestone accomplishments
- Peer Comparables
- Income and time to market approaches
- Legislation - Continuously evolving
- Complexities of healthcare delivery and technology
- Cost reduction and improved outcome focus
- Required investment needed to meet growing demands of better outcome and reduced costs
Determining Fair Market Business Value (cont.)

*Not* So Obvious but Important:

- Agreements in existence or in discussions
  - Vendors
  - Strategic Partners
  - Distributors
  - Joint Venture partners
  - Expert relationships both medical institution and individual
  - Customers
  - Regulatory Approvals: not just FDA i.e. EPA
  - Studies
  - Publications
  - Rights of first refusals
  - LOI’s
**Other Not So Obvious:**

- Prior, pending or current Bankruptcy and Litigation
- IRS/Tax Issues e.g. unpaid payroll taxes.
- Patent Infringement
- Partner Disputes
- Spouse Disputes
- Economic Damages
- Audit Findings (good and bad), regulatory bodies, financial, vendor, etc.
- Stock Options and Grants, etc.
- Strategic Direction, Spin-Offs, Carve Outs, etc.
- Any previous Due Diligence

- **Be Honest** with the investor … diligence always finds these things out!
Adjustments to Valuation: There are several value-adding or value-dettracting factors. Examples include

- **The Management Team** – “newbies” or “been there, done that”.
- **Medical Need** - The acuteness of the medical need for their product (e.g. Cancer, Alzheimer’s, Cystic Fibrosis, Heart Failure etc),
- **Platform vs. product** - Follow-on applications (platform technology or single application),
- **Partners** - The strength of existing financial and development partners in supporting ongoing product development.

The Current Financing Window and the Need to Raise Capital

- **Urgent Capital Need** – “blood in the water”. Valuations are significantly reduced when the company has less than 120 days of cash reserves.
- **Well funded** – adequate resources creates “Seller Power”, and the attitude of “I don’t really need your investment”. This creates competition in the investor market and increases valuation for a place at the table.
Investors hate surprises! Be ready for Full and Fair Disclosure.

A thorough review of all previous offering documents of the company often provides crucial information on changes in the:

- business plan,
- milestones, schedules,
- and other representations.

An analysis of these changes can provide insight into the ability of management to:

- forecast
- meet objectives or milestones
- evaluate competition and market size

Review of prior offering documents can also:

- highlight changes in management that should be explained and investigated
- uncover inconsistencies in financial reporting
- reveal changes in key representations about the company or its product
Appropriate valuation ensures that future financing events are not handicapped by unrealistic prior rounds (leading to “cram downs”).

Many valuation methods are available but … all methods do not work equally well for early and development-stage biotechnology companies.

Investors will use the same appropriate methods but will make harder adjustments for:
- Lowering revenue projections and sales ramps
- Downsizing the addressable market for the product(s)
- Increasing time to approval/market
- Increasing future capital needs, and
- Increasing the overall risk profile of the business.

The negotiation then begins to find a compromise where both parties are neither truly happy or unhappy.
Conclusion

- Both parties must be prepared
- The investor will be prepared, you can count on it
  - Angel Investors are more prepared than ever before
- Timing of investment decision is readily tied to the completeness, accuracy and the availability of all company information as has been discussed in this presentation
- Build a relationship with your potential investors or partners
- Meet Milestones
- So, be prepared, be organized, meet milestones, be forthcoming, NO surprises, BE HONEST, do it right

**HOWEVER:** “When all is said and done the true valuation of a company comes down simply to the investor who writes the check”.