Investment trends and opportunities in drug discovery and development

Dr. Patrik Frei
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Overview

1. Venture Valuation
2. Key investment trends
3. Find the right investor
Valuation Valuation

Mission
Independent assessment and valuation of technology driven companies / products in growth industries

Offices
HQ: Zurich with representative offices in Europe, North America and Asia

Employees
20 people in Switzerland / UK / Canada / Singapore / India

Clients
Pharma, Biotech and Investors such as Novartis Venture Fund, GSK, European Investment Bank, 4SC, Arpida/Evolva, Celtic Pharma
Biotech Associations / Governments like Biocom, Medicon Valley, BioHouston, SwedenBio, BIOTEC Canada, Maryland
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Financing Trends: M&A

M&A in big Pharma:

- Novartis, GSK, Lilly => almost USD 30bn
- Pfizer, AstraZeneca => was to be USD 106bn+
- Bayer, Merck => USD 14.2bn

Focus, consolidation, pressure for new products in the pipeline
Financing Trends: Licensing

Pharma pressure leads to more deals and higher value deals

Deals 2014:

- Immunocore Ltd., UK with MedImmune: USD 320m per program
- Santaris Pharma A/S, DK, with Roche: USD 148m per product

Source: BioMeter, MoFo, 2014
Financing Trends: Private Financing

Source: Biotechgate.com, 2014

Quarterly Biotech and Medtech VC Financing Rounds - E.U. vs U.S.
Financing Trends: Public & Private

Source: Biotechgate.com, 2014

Total Value in million USD


0  1000  2000  3000  4000  5000  6000  7000  8000  9000
Financing Trends: Financing

New investors

- Less VC
- IPO and public funding
- More corporate investors
- More family offices
- More grants / Government

=> more difficult for private companies to find financing
## Industry Trends: EU Financing 2014

<table>
<thead>
<tr>
<th>Company</th>
<th>Sector</th>
<th>Amount (in Million EUR)</th>
<th>Ownership</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>QIAGEN B.V.</td>
<td>R&amp;D Services</td>
<td>528</td>
<td>Post-IPO</td>
<td>Netherlands</td>
</tr>
<tr>
<td>Circassia Limited</td>
<td>Therapeutics/Diagnostics</td>
<td>240.6</td>
<td>IPO</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>Flamel Technologies</td>
<td>Therapeutics/Diagnostics</td>
<td>76.2</td>
<td>Post-IPO</td>
<td>France</td>
</tr>
<tr>
<td>Transgene SA</td>
<td>Therapeutics/Diagnostics</td>
<td>65.5</td>
<td>Post-IPO</td>
<td>France</td>
</tr>
<tr>
<td>Vectura Group plc</td>
<td>Pharmaceuticals</td>
<td>62.6</td>
<td>Post-IPO</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>Glycotope GmbH</td>
<td>Therapeutics/Diagnostics</td>
<td>55</td>
<td>Private</td>
<td>Germany</td>
</tr>
<tr>
<td>Horizon Discovery</td>
<td>R&amp;D Services</td>
<td>48.1</td>
<td>IPO</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>Nanobiotix</td>
<td>Therapeutics/Diagnostics</td>
<td>20.3</td>
<td>Post-IPO</td>
<td>France</td>
</tr>
<tr>
<td>invendo medical GmbH</td>
<td>Medical Technology</td>
<td>20.3</td>
<td>Private</td>
<td>Germany</td>
</tr>
<tr>
<td>Verona Pharma plc</td>
<td>Therapeutics/Diagnostics</td>
<td>16.8</td>
<td>Post-IPO</td>
<td>United Kingdom</td>
</tr>
</tbody>
</table>
Industry Trends: Orphan diseases

- High price (up to USD 500’000)
- Less competition, fast-tracked, lower-cost late-stage development and marketing
- Market size: USD 127bn by 2018 (16% of total prescription)
- Gross profit margins of over 80% (industry average 16%)
- Of 43 brand blockbusters 18 were approved solely for orphan
- Gleevec (original orphan to non-orphan) (9’000 to 120’000 patients)
- Biotechs more suited => small community, family, patient groups

=> M&A, partnerships and IPO opportunities
## Investment in Orphan diseases (EU)

<table>
<thead>
<tr>
<th>Company</th>
<th>Country</th>
<th>Date</th>
<th>Financing round</th>
<th>Amount (m USD)</th>
<th>Lead product</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNIQURE</td>
<td>Netherlands</td>
<td>Feb 14</td>
<td>IPO</td>
<td>91,80</td>
<td>approval stage</td>
</tr>
<tr>
<td>GANYMED</td>
<td>Germany</td>
<td>Nov 13</td>
<td>Private round</td>
<td>61,40</td>
<td>phase II stage</td>
</tr>
<tr>
<td>OPSONA THERAPEUTICS</td>
<td>Ireland</td>
<td>Oct 13</td>
<td>Private round</td>
<td>45,00</td>
<td>phase II stage</td>
</tr>
<tr>
<td>ABLYNX NV</td>
<td>Belgium</td>
<td>Feb 13</td>
<td>Post-IPO</td>
<td>43,00</td>
<td>phase II stage</td>
</tr>
<tr>
<td>WILSON THERAPEUTICS AB</td>
<td>Sweden</td>
<td>Apr 14</td>
<td>Private round</td>
<td>40,00</td>
<td>phase I stage</td>
</tr>
<tr>
<td>TIGENIX NV</td>
<td>Belgium</td>
<td>Nov 13</td>
<td>Post-IPO/Debt</td>
<td>30,00</td>
<td>phase II stage</td>
</tr>
<tr>
<td>ERYTECH PHARMA</td>
<td>France</td>
<td>May 13</td>
<td>IPO</td>
<td>24,10</td>
<td>phase III stage</td>
</tr>
<tr>
<td>TXCELL</td>
<td>France</td>
<td>Apr 14</td>
<td>IPO</td>
<td>22,10</td>
<td>Company strategy</td>
</tr>
<tr>
<td>INDEX PHARMACEUTICALS</td>
<td>Sweden</td>
<td>Feb 14</td>
<td>Private round</td>
<td>20,00</td>
<td>phase III stage</td>
</tr>
<tr>
<td>ERYDEL SPA</td>
<td>Italy</td>
<td>Jul 13</td>
<td>Private round</td>
<td>19,90</td>
<td>Delivery system in phase II</td>
</tr>
<tr>
<td>PHARMALINK AB</td>
<td>Sweden</td>
<td>Oct 13</td>
<td>Private round</td>
<td>15,00</td>
<td>phase II stage</td>
</tr>
</tbody>
</table>
Overview

1. Venture Valuation
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Finding the right investor

- How much money do I need, for what?
- Dilutive or non-dilutive financing?
- Where should I get the money from?

=> Valuation as a key issue

=> Raising money takes a lot of time
## Equity Finance

<table>
<thead>
<tr>
<th></th>
<th>Venture Capital</th>
<th>Corporate Investors</th>
<th>Family Offices</th>
<th>Business Angels</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size</strong></td>
<td>&gt; USD 5 m</td>
<td>Open</td>
<td>Open</td>
<td>&lt; USD 2m</td>
</tr>
<tr>
<td><strong>Company type</strong></td>
<td>High risk / potential</td>
<td>Strategic fit, innovative</td>
<td>Service component, opportunistic</td>
<td>Seed / early stage</td>
</tr>
<tr>
<td><strong>Total capital requirement</strong></td>
<td>High</td>
<td>High</td>
<td>Medium</td>
<td>Low</td>
</tr>
<tr>
<td><strong>Exit</strong></td>
<td>5-10 years, M&amp;A, (IPO)</td>
<td>M&amp;A</td>
<td>Long-term partner</td>
<td>Medium term</td>
</tr>
</tbody>
</table>
Financing Conclusion

- Think outside the box / options
- Use local government and global research grants (non-dilutive)
- Consider licensing (in- and out-licensing)
- Understand the value of each product
- Find best match, not highest value
- Get the money when you can
- Network, network, network....
Thank you!

Slides available for download: www.venturevaluation.com => Resource Center

Tel.: +41 43 321 86 60
Fax: +41 43 321 86 61

p.frei@venturevaluation.com