Pharmaceutical and Biotech Industry in Transition

SMG Business Seminar

Jan Leschly
Care Capital LLC
August 22, 2008
"The Food Chain": Who Does What?

- Basic science: -3 years
- Discovery: 6 years
- Preclinical development: 12 years
- Phase I: 14 years
- Phase II: 14 years
- Phase III: 14 years
- FDA review: 14 years
- Marketing & sales: 14 years

Universities and institutions:
- Universities
- Biotechnology institutions
- Tool companies: 2500
- Biotechnology companies: 500

Early product companies: 500
“The Food Chain”: Who Does What?

-3 years
6 years
12 years
14 years

basic science
discovery
tool companies
preclinical development
biotechnology
universities
institutions
Phase I
preclinical development
Phase II
biotechnology
early product companies
Phase III
FDA review
products
marketing & sales
marketing & sales
Pharmaceutical companies – global
40
Pharmaceutical companies – regional
200+
Slenty pharma companies
2500
500

Failure of Industry Model

What has gone wrong?
Industry Environment

- Patent expirations
- R&D productivity
- Price pressures
- Regulation
Pharma’s Revenue Growth Dilemma

Price pressures
Weak pipelines
Sales and marketing wars

Today

Revenue

Tomorrow

8 - 12% CAGR
6 - 8% CAGR

Years

Patent threats
Faster generic erosion
Product recalls
$67 billion in lost sales by 2012
• 25% of total sales

Source: Sanford C. Bernstein & Co. Lost sales applied in year of patent expiry. Magnitude of lost sales are the actual 2006 sales for drugs of 10 major pharma co’s: MRK, SGP, WYE, AZN, BMY, LLY, GSK, NVS, PFE & SNY. Total 2006 sales for 10 companies totaled $280bn.
Low Productivity

Approvals excludes biological drugs. Sources: Phrma; FDA; Wall Street Journal, December 2007
External Pressures

• FDA
  – Safety
  – Resources and inconsistent leadership

• Price pressures
  – Reimbursement driven by product value
  – Increasing payor leverage

• Additional threats
  – Parallel importation
  – Biosimilars
  – Sales practices
Implication for Big Pharma

- Revenue growth under pressure
- Restructure of R&D organisation
- Cost cutting/outsourcing
- Rationalization of product portfolio
- Adjusting Sales and Marketing effort.
- Continued consolidation
Implications for BioTech

- Improved possibilities for “Exits”:
  - Big Pharma forced to acquire Biotech Companies or their products

- Valuation increased for Right Product at earlier Development Stage.

- Easier access to Qualified Scientists and Managers.
Implications for VCs

- Asset selection more nuanced
  - Anticipate future regulatory and commercial environment
  - 8 year time horizon (buyers 3 years out will be thinking 5 years out)

- Need to understand evolving regulatory framework
  - Safety, clinical endpoints, pharmacovigilance

- Buyers in turmoil
  - Pharma still generating significant cash
  - Increasing demand for products to fill gap
  - Streamlining will result in new investment opportunities
Care Capital Overview

- Founded in 2000 and based in Princeton, NJ
- Focus on pre-clinical and clinical stage drug development companies
- ~$500 million under management
  - Currently investing Fund III
# Investment Team

<table>
<thead>
<tr>
<th>Partners</th>
<th>Jan Leschly</th>
<th>CEO SmithKline Beecham and President and COO, Squibb Corporation</th>
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<tbody>
<tr>
<td></td>
<td><em>Chairman and Founder</em></td>
<td></td>
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<tr>
<td>Jerry Karabelas, Ph.D.</td>
<td></td>
<td>CEO Worldwide Pharmaceuticals for Novartis AG and EVP Pharmaceuticals SmithKline Beecham</td>
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<tr>
<td>Richard Markham</td>
<td></td>
<td>Vice Chairman of the Management Board and COO Aventis, CEO of Aventis Pharma and Hoechst Marion Roussel and President of Merck</td>
</tr>
<tr>
<td>Lorenzo Pellegrini, Ph.D.</td>
<td></td>
<td>Wharton MBA, Yale University (post-doctoral fellow, Cell Biology), Max-Planck Institute (Ph.D., Biochemistry)</td>
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<tr>
<td></td>
<td>David Ramsay</td>
<td>Co-founder and Managing Director of Rhone Capital and member of the Investment Committee of Morgan Stanley Capital Partners</td>
</tr>
<tr>
<td>Principal</td>
<td>Robert Seltzer</td>
<td>Wharton MBA, Boston Consulting Group, Founder and President of Trenza, University of Pennsylvania (Masters in Biotech), Yale University</td>
</tr>
<tr>
<td>Analyst</td>
<td>Rachel Jonas</td>
<td>Citi Investment Banking (M&amp;A), Wharton (B.S.E), University of Pennsylvania (Bachelor of Science in Bioengineering)</td>
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<tr>
<td>CFO</td>
<td>Dan Cabo</td>
<td>KBL Healthcare Ventures, CIBC</td>
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Care Capital Investment

Focus

- Clinical stage therapeutic products

- Capitalize on industry trends
  - Drugs for true unmet medical needs will command premiums
  - Trends to safety
  - Focused sales strategy

- US/ Europe
  - Easier to actively manage companies in geographical sweet spot
Competitive Advantages

- Drug development is highly complex
- Unmatched qualifications to evaluate and assist drug development companies
  - Technology, science, products
  - Management
  - Development and regulatory strategy
  - Commercial potential and positioning
  - Valuation and structuring
- Extensive relationships with Pharma and Biotech
  - Investment opportunities
  - Strategic opportunities
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<th><strong>Medicon Valley – By the Numbers</strong></th>
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<td>~ 3 million inhabitants</td>
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<td>12 universities</td>
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<td>150,000 university students</td>
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<td>3,500 life science researchers</td>
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<td>32 hospitals, of which 11 are university hospitals</td>
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<td>13 science parks and incubators</td>
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<tr>
<td>140 biotech companies</td>
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<tr>
<td>70 pharma companies</td>
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<td>130 medtech companies</td>
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<td>15 clinical research organisations</td>
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<td>30 investors</td>
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Cultural Change

University

- Multidisciplinary university programs
- Create exchange programs abroad
- Generous tax incentives for expatriates
- Initiatives modeled after Bayh-Dole Act
- Generous tax incentives for international talent
- Visa program for non-EU scientists
- Modify personal liability laws to promote entrepreneurship
- Create Center for IP processing excellence
- Educate scientific community about government grant activities

Biotech Co.

Pharma Co.
THANK YOU

Jan Leschly

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BUT ALWAYS REMEMBER:

PAST SUCCESS IS NO GUARANTEE
FOR FUTURE SUCCESS!