The Second Decade of Crop Biotechnology: Private Investments in Biotechnology

Washington, DC
January 16, 2008

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Background on LSP

- 20 years of life sciences investing in Europe
- Invested in 46 companies and realized 23 IPO’s / trade sales
- Eight Partners with finance, science and industry experience
- Expanded into the US in 2006
- Prime position in Europe and the US
- Top quartile returns with realized multiple > 3.5x
- Raised $ 500 million from top tier investors in Europe and USA
LSP's Reach

- **US Office**
  - Located in Boston since 2006
  - Invest along the agricultural based value chain
  - Large US VC network
  - A Value adding investor with deep domain expertise
  - Lead-investor and Hands-on

- **European Offices**
  - LifeSciences investors with 17+ yrs experience
  - Invest in early to late stage therapeutics and medical devices
  - Offices in Amsterdam and Munich
  - Top-five position in Europe,
  - Lead investor and hands-on approach
The BioVentures Strategy:
Invest along the agricultural based value chain

Environment & Crop Solutions
BioEnergy
Biomaterials
Health & Wellness
Food & Nutrition

Seed / Farm → Processing → Consumer

Platform Technologies
AgBioTech: Historical Perspective

1980’s/1990’s
- Crop protection companies buy seed companies and technology start-ups at high valuations
- New genomics, bioinformatics companies will usher new era
- Forecast growth from more crops, geographic expansion
- Output traits will lead next generation

1999 - 2007
- Consolidation of crop protection industry (12 => 6)
- Plant biotech divisions in turmoil after consolidation
- Further consolidation through R&D alliances between Monsanto/BASF and Syngenta/Pioneer
- Public perception problems for GMO in Europe continues
- No real progress on output traits
Investor Perspective

- Few VC’s know plant biotech space; even fewer are committed to invest in the space

- Early collaborations and license deals generate early cash-flow, but restrict the exit potential

- Time to exit tests the patience of VC’s

- Few exit opportunities
  - IPO markets are not in favour of plant biotech companies
  - Limited number of potential M&A partners
    - Reactive acquisitions not necessary strategic
    - Auction situations are rare
    - Data points not trends (Verdia, Crop Design)
    - Timing is everything
Current Trends - Entrepreneurial Companies

- Still need a viable business model
  - Finance gap from discovery to royalties
  - R&D alliances are important but don’t guarantee financial security

- Some AgBio companies re-inventing themselves as biofuels / clean tech plays
  - Yield, nitrogen utilization become a biofuels/global warming traits
  - Opens up new strategic alliance options (e.g. BP)
  - VC money easy to raise; Much higher valuations
  - Still need a sustainable business model
Upcoming Innovations?

- **Incremental yield improvements**
  - New / better disease and weed control
  - Drought resistance
  - Nutrient efficiency
  - and others

- **Output traits**
  - Biomaterials
  - Nutritional quality
  - Industrial raw materials

- **BioEnergy**
BioEnergy: A Bubble or the Future for Crop Biotech

- In short-term the status of corn-to-ethanol and R&D timelines are not aligned.
- Cellulosic ethanol may open mid-term opportunities.
- BioMaterials could be the winner
- Biomass improvements will be key
Thank You

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