



Unlocking the Value of Life Science Innovation Through Corporate Spinouts

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Presentation Outline



- ◆ The Dilemma
- ◆ The Decision: To Spin or Not to Spin
- ◆ The Implementation Process
- ◆ The Result: Targacept as an Example

The Dilemma of Corporate Innovation in the Life Sciences



- ◆ Record amounts being spent on R&D
- ◆ Contrary to expectations:
 - *productivity (increase in product approvals) thus far not proportionately increased*
 - *“R” component of the pipeline becoming more full than “D”*
- ◆ Corporate innovations often languish
 - *Lack of focus, motivation*
 - *Lack of championing, leadership*
 - *Lack of entrepreneurial culture, incentives*
 - *Lack of sufficient funding, other resources*
 - *Internal parent conflicts, cannibalization issues*
 - *Lack of strategic, organizational, and financial autonomy*
- ◆ A key problem in corporate strategy and in R & D portfolio/innovation management



How to unlock latent value and unrealized ROI?

The Macroeconomic Backdrop of Corporate Spin-Outs

- ◆ Global life sciences sales ~\$400 **billion** in 2002
- ◆ Represents R & D spend of ~\$60 billion
(at weighted average of 15% of sales)
- ◆ 30:70 R-to-D spend ratio yields annual spend of
~\$18 billion of pure “R”, far more if early “D” added
- ◆ Probability of success still low at time of critical
“D” decision point
- ◆ Managers have to make hard choices

Key Strategic Choices for Life Science Industry Managers



- ◆ How best to maximize chances of success of corporate innovation...
 - Develop Internally?
 - Co-Develop?
 - License?
 - Wait another year?
 - Sell?
 - Kill?
 - Spin Out?
- ◆ How best to maximize value creation...

Why Spin-Out A Potential Star?

Counter-intuitive to corporate strategy?

The problem

- ◆ Massive investments in R&D and new venture development generate 'excess' innovations, beyond firms' ability to exploit successfully

The result

- ◆ Innovations languish, little or no value creation

A potential solution?

- ◆ Spinouts offer a chance for maximizing value creation for all, including the parent

Strategy Formulation: Spinout Decision Analysis



- ◆ Is the innovation a non-core asset?
- ◆ Do the assets have a sufficiently strong case as an independent business?
- ◆ Is the innovation likely to languish if kept inside the parent firm?
 - *Strategic considerations*
 - *Organizational considerations*
 - *Financial considerations*
- ◆ If yes, then spin out?
- ◆ If so, then how? How much? When? With whom? Where?

Factors Driving Corporate Spin-Outs: The Microeconomic Perspective



- ◆ Increased flexibility to better leverage R & D assets
- ◆ Leveraging external capital to deliver additional value/opportunities to the parent
 - *product, technology, geographic, other*
- ◆ Financial statement benefits:
 - ◆ **Income Statement:**
 - reduced R & D expense
 - ◆ **Cash Flow Statement:**
 - Net positive effect depending on structure
 - ◆ **Balance Sheet:**
 - Immediate increase in book value of R & D assets that grows with time

The Spectrum of “Spininnovation”



Innovation-Driven

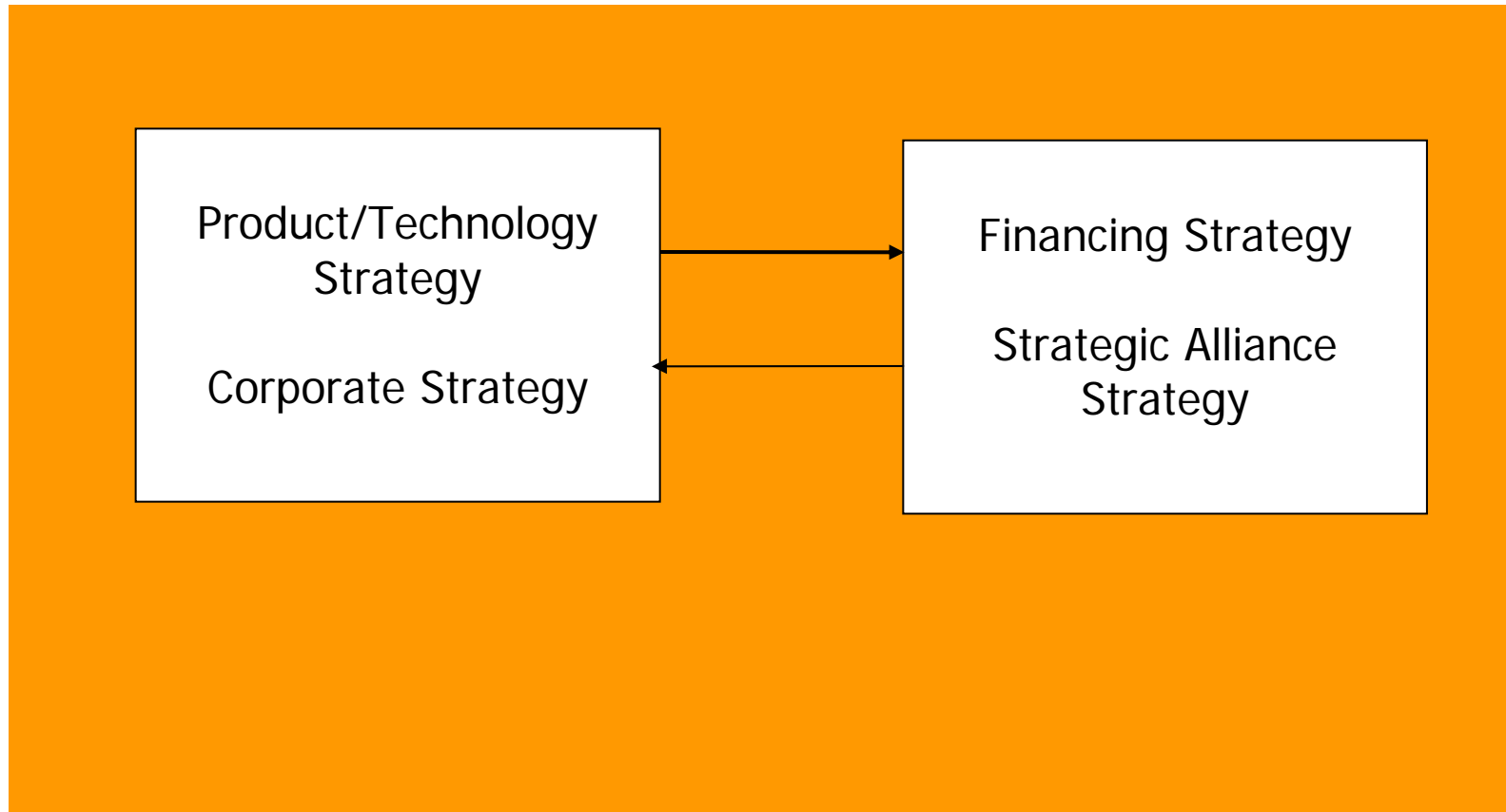
Commercialization-Driven

Strategy Implementation: Spinout Execution



- ◆ How to separate from the parent?
- ◆ Establishing strategic, organizational, and financial autonomy
 - *Organizational structure*
 - *Leadership, culture*
 - *Ownership, incentives*
 - *Funding, financing*
- ◆ Spinouts can easily fumble in execution
- ◆ Parents can have a hard time letting go!

Spin-Out Process Involves Careful Integration of Various Strategic Domains



The Comprehensive, Integrated Spin-out Plan



- ◆ Design and implementation of organizational and corporate culture strategy
- ◆ Design and implementation of R & D and corporate development strategy
- ◆ Strategy and implementation of external board member and key advisor recruitment
- ◆ Selection and management of accounting and legal representation
- ◆ Public relations/publication strategy
- ◆ Design and implementation of strategic alliance strategy
- ◆ Design and implementation of financing strategy

Aforementioned Factors Offer Investors A Superior Risk-Reward Profile



Spun-out Companies:

- ◆ Typically are the result of \$millions of prior R & D investment
 - *VC investment valuations almost always are at a significant discount to the total R & D spend-to-date, but.....*
 - *Typically intermediate to late stage deals by VC standards*
- ◆ Most often come with at least proof-of-concept data
 - *data generation by major bio-/pharma companies typically higher quality*
 - *often human clinical data*
- ◆ Almost always created with experienced R & D managers
- ◆ Parent typically retains a minority interest

***Combined with effective board management,
spin-outs generate superior returns.....***

Spin-Out Examples

Public Companies in the Life Sciences Sector

Company	Parent	Spin-Out Date	IPO	1st Rd Investors' ROI
Chemgenics (ex-Myco Pharma)	PerSeptive Biosystems	May 1996 Acq Unit by Myco	Jan 1999 Acq by Millennium Pharma	6.7 X 1,629%/y IRR
Anormed	Johnson Matthey	Jun 1996	Mar 1999	2.3X 36%/y IRR
VaxGen	Genentech	Mar 1997	May 1999	1.9X 30%/y IRR
Maxygen	GSK	Mar 1997	Dec 1999	8.0X 113%/y IRR
InterMune	Connectics	Apr 1999	Mar 2000	16.0X 1,500%/y IRR
Actelion	Roche	Apr 1998	Apr 2000	26.2X 412%/y IRR

Spin-Out Examples

Public Companies (cont'd)

Company	Parent	Spin-Out Date	IPO	1st Rd Investors' ROI
Cytovia	CoCensys	Apr 1998	Jun 2000 Acq by Maxim Pharmaceuticals	1.6X 24%/y IRR
Paradigm Genetics	Novartis	Feb 1998	May 2000	8.8X 162%/y IRR
Principia	Aventis Behring	Jul 1999	Sep 2000 Acq by Human Genome Sciences	13.3X 816%/y IRR
Ecopia BioSciences	Theratechnologies	Jan 1998	Oct 2000	28.0X 236%/y IRR
Novuspharma	Roche	Sep 1999	Oct 2000	Data N/A
Seattle Genetics	Bristol-Myers Squibb	Apr 1998	Mar 2001	7.0X 95%/y IRR
Zymogenetics	Novo Nordisk	Nov 2000	Feb 2002	Data N/A

Spin-Out Examples

Recent Investments



Company	Parent	Spin-Out Date	Size 1st Rd Investment	1st Rd Valuation
Altus Biologics	Vertex	Jan 1993	\$36 MM (in Sep 2001)	\$90 MM
Circe Biomedical	WR Grace	Jan 1999	\$16 MM	\$25 MM
Cognis Nutrition & Health	Henkel	Aug 1999	Data N/A	€2,600 MM
Neucoll	Cohesion Technologies	Mar 2000	\$4 MM	\$7 MM
454 Corp	Curagen	Jun 2000	\$20 MM	\$50 MM
Targacept*	RJ Reynolds	Aug 2000	\$30 MM	\$53 MM
Basilea	Roche	Oct 2000	\$101 MM	\$199 MM
Panacos Pharmaceuticals	Boston Biomedica	Nov 2000	\$3 MM	\$5 MM

Spin-Out Examples


Recent Investments (cont'd)



Company	Parent	Spin-Out Date	Size 1st Rd Investment	1st Rd Valuation
Protiva	Inex	Jan 2001	C\$2 MM	C\$6 MM
metaGen	Schering AG	Mar 2001	€42 MM	€84 MM
Perlegen Sciences	Affymetrix	Apr 2001	\$100 MM	\$240MM
Inoxell	Pharmexa	May 2001	\$2 MM	\$11 MM
Kalypsys	Novartis Research Foundation	Jun 2001	\$43 MM	Data N/A
Biovitrum	Pharmacia	Jun 2001	\$130 MM	\$195 MM
MetriGenix	Gene Logic	Jul 2001	\$15 MM	\$34 MM
Affymax	GSK	Aug 2001	\$51 MM	Under \$102 MM

Spin-Out Examples

Recent Investments (cont'd)



Company	Parent	Spin-Out Date	Size 1st Rd Investment	1st Rd Valuation
Cellzome	GSK	Sep 2001	Acq GSK Unit by Cellzome for equity	Data N/A
Amphora Discovery	Caliper Technologies	Sep 2001	\$35 MM (\$25 MM received, \$10 MM later)	Over \$49 MM
Cumbre	Tularik	Sep 2001	\$26 MM	Over \$52 MM
Tercica Medica	Genentech	2001	\$21.5 MM	Data N/A
BioXell	Hoffmann-LaRoche	Mar 2002	€42 MM	€39 MM
TargeGen	Forward Venture Program	Apr 2002	\$10 MM	Data N/A
Avera Pharmaceuticals	GSK	May 2002	\$16 MM	Data N/A
ESP Pharma	Wyeth	May 2002	\$28 MM	Data N/A

Genesis of a Spinout: The Targacept Story



R.J. Reynolds Tobacco unit spun off from RJR
Nabisco Holdings

- ◆ A success!
- ◆ Sum of both stocks significantly higher than former single stock

Several technologies existed within the R&D
department of R.J. Reynolds Tobacco

Could a spinout work to maximize the value of
cholinergic ion channel research?

Development of Targacept, Inc.



Pharmaceutical Associates (1996)

- ◆ Evaluated technologies
- ◆ Generated recommendations
 - *Clinical development*
 - *RJR New Business Council*

CPP Advisors LLC (1996)

- ◆ Generated & assessed strategic options
- ◆ Recommended phased approach to build value
 - *Demonstrate key R & D capability: intra-CNS separation*
 - *External validation through securing corporate partner*
 - *Execute spinout to focus human and venture capital*



Strategy for Targacept Spinout



Incorporate Targacept

Develop valuation internally

- ◆ IP development, portfolio expansion
- ◆ Clinical development
- ◆ Partnering with “big pharma”
- ◆ Product development

Business plan

Venture capital financing

Development of Targacept, Inc.



Phase I clinical trial completed (12/96)

Targacept incorporated as wholly-owned sub (3/97)

Selling of nicotinic concept to “big pharma”

Attempted partnership with J&J (3/98)

- ◆ Parent issues
- ◆ Pursuit of other partnerships

Development of Targacept, Inc.

Aventis and Astra-Zeneca collaboration investigated

Aventis collaboration signed (12/98)

Began seeking venture capital funding (Fall 99)

Closing in March 2000 scheduled:

- ◆ Stockholder revolt at International Biotechnology and Trust Fund (IBT)
- ◆ Extensive effort to re-mobilize lead investor search

Development of Targacept, Inc.



New lead investor identified and signed within 4 weeks (Euclid SR Partners)

Largest first-round venture capital funding in NC history at the time (\$30.4 million)

Signed stock certificates for RJRT and investors on August 22, 2000!!!

RJRT now a minority investor

Managing the Transition Out of the Parent Company



Human Resources

- ◆ Culture
- ◆ Compensation
- ◆ Benefits
- ◆ Organizational structure
- ◆ Policies and procedures

Outsource versus In-source

- ◆ Core vs. context

Creating a Viable Corporate Structure for the Spinout



The management team

- ◆ Key to present and future success
- ◆ Must fulfill all necessary roles of enterprise
- ◆ Shaping the team to the mission

Core team from RJRT

- ◆ 80 years R&D management experience
- ◆ Together 8 years
- ◆ Key hires
 - CFO, VP Clinical Development, VP Business Development

Creating a Viable Corporate Structure for the Spinout



Infrastructure

- ◆ Accounting/payroll/benefits
- ◆ Office and laboratory space
- ◆ Implementation of IT
- ◆ Organizational effectiveness (decision rights)
- ◆ Hiring

Strategic planning

Integration of board into company

Targacept, Inc.: Post-Spinout

- ◆ A leader in exploiting cholinergic ion channels as a new class of targets for drug discovery
- ◆ Targacept has been validated by:
 - *Strategic alliance with Aventis*
 - *\$30.4 MM venture capital investment*
- ◆ Other milestones
 - *Strong management team completed by 1Q01*
 - *Strong cash position*
 - *Aventis to extend collaboration*
 - *2nd deal completed: UC, Dr. Falk Pharma, GmbH*
 - *2nd financing almost completed*
 - *Evaluating business opportunities beyond nicotinic*

Spinout Views from the Outside: CPP Perspectives on the Targacept Process



- ◆ Balancing parent vs. spinout drivers for transaction
- ◆ Setting and managing expectations of both sides
- ◆ The faces of strategy in a spinout environment
 - *Strategic assessments: “the map is not the territory”*
 - *Strategic adaptation: “malleable” implementation*
 - *Strategic opportunism: leveraging “luck”*

Spinout Views from the Outside: Investor Perspectives



- ◆ “Management, management, management”
- ◆ Parental influence: “less is more”
- ◆ The perception and value of time
- ◆ Growth and exit strategy

Summary

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- ◆ Rising R & D costs and product pricing pressures driving need to better rationalize portfolio management
 - ◆ Spin-outs creative way to achieve strategic, technology/product and financial objectives
 - ◆ Key is careful structuring and implementation of the process
 - ◆ Significant value can be created as a result

