



Business Insights

For a clearer market perspective

Building Biotech Technology Transfer Opportunities

Sponsor and developer strategies
for success



Report Price
Publication date

£1995/€2885/\$3835
March 2010



About us



Business Insights' portfolio of healthcare reports is designed to help you make well informed and timely business decisions. We understand the problems facing today's pharmaceutical and healthcare executives when trying to drive your business forward, and appreciate the importance of accurate, up-to-date, incisive product, market and company analysis. We help you to crystallize your business decisions.

Business Insights' reports are authored by independent experts and contain findings from dedicated primary research. Our authors' leading positions secure them access to interview key executives and to establish which issues will be of greatest strategic significance for the industry.

Our healthcare portfolio of reports can be used across a wide range of business functions to assess market conditions and devise future strategy. Our reports cover key areas including **strategy, industry analysis, market outlook, new business opportunities** and **strategic insight**.

Report overview

Drug developers have long been under pressure to introduce new products in an environment of escalating R&D costs, blockbuster patent expiration and resulting generic competition. Current weak economic conditions have exacerbated these challenges with sweeping R&D staff and budget reductions. In order to remain competitive, drug makers must now do more with less. Technology transfer, particularly of new biotechnologies that offer novel means to address unmet medical needs, offer a way to cost effectively address these challenges. They also provide technology developers with a mechanism to monetize their inventions.

However, while some drug makers and technology developers have optimized their biotech technology transfer methodologies and have developed sophisticated processes to select, monitor and manage a wide range of relationships, many other biotech technology transfer projects fail. A large proportion of these failures could be averted as many of the most common reasons for failure are preventable problems relating to due diligence failures, shortcomings in deal structure, management changes, cultural challenges, and inappropriate project organization and expectations. This report provides details on how to avoid these common pitfalls with case studies that illustrate best practices.

Pages 137

Figures 11

Tables 24

"This report provides an in depth analysis of the types of different biotech technology transfer relationships, their advantages and disadvantages. It also provides forecasts of industry-wide biotech technology transfer through 2015, and a discussion of trends during this time..."

Key findings



After a decline in 2008 to 53 deals from 74 deals in 2007, biotech technology transfer volume for human medicines spiked in 2009 to 121 deals.



More than half of biotech technology transfer deals fail.



However, some firms experience very low failure rates of less than 10% while others report very high failure rates in excess of 70%.



Many biotech technology transfer failures can be traced to an inability on the part of the sponsor to adequately perform initial due diligence.



Over the next five years, the role of biotechnology in drug development is expected to expand strongly as biotech drug sales rise by 17.7% per year while small molecule drug sales grow by just 2.9% annually.



However, the very high prior rate of biotech technology transfer deal value growth is expected to decline from 27.1% per year to 18.5% per year as technology valuations become more closely aligned with actual market potential.

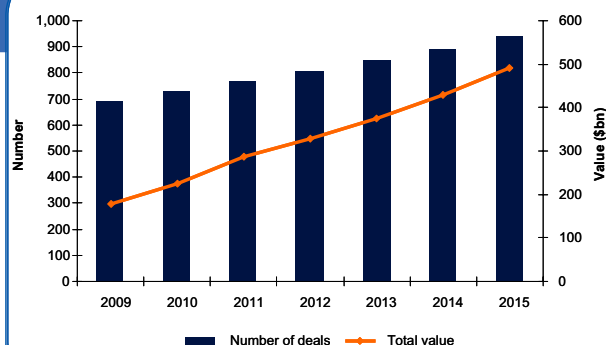


Figure 4.11: Number and volume of biopartnering deals, 2009 - 2015

“From 1997 through 2009, the volume and value of biotech tech transfer relationships has continued to rise strongly, particularly with increasing usage of milestone payments tied to technology performance. This trend is expected to continue through 2015, although the very high prior rate of deal value growth is expected to decline from 27.1% per year to 18.5% per year as technology valuations become more closely aligned with actual market potential.”

Use this report to...

- **Understand the driving forces** behind biotech technology transfer.
- **Save time and money** with the report's succinct compilation and analysis of current biotech technology transfer trends.
- **Learn how** biotech technology transfer will evolve over the next several years and why.
- **Assess your competitive position** vis-à-vis other technology sponsors or technology developers and learn about biotech technology transfer best practices via detailed case studies.
- **Understand the reasons** behind biotech technology transfer success and failure.
- **Develop strategies** to optimize your biotech technology transfer methodologies and protocols.

Key issues...



The drug development industry is undergoing a significant change which may permanently re-shape product development activities. Many industry experts believe the industry is shrinking; at the very least, the focus is shifting from large in-house research teams to smart approaches, strategic outsourcing and technology transfer.



Although cost cutting has previously not been a concern for R&D departments, the current economic environment has brought expense reduction programs into research labs. Most of the leading drug makers have recently undertaken and/or are currently in the midst of broad R&D cost cutting programs.



Biotechnology offers a means to address unmet medical needs, particularly via personalized medicine, which small molecule approaches do not. With more than 3,500 biotech drug companies around the world, many have developed unique technologies and approaches to drug development.



Because drug makers must continue to introduce new products, maintaining high productivity is the key. Biotech technology transfer offers a means to achieve this by providing technology sponsors with access to new technologies.



Many biotech technology transfer sponsors maintain relationships with a multitude of technology developers. The savviest sponsors utilize a comprehensive, deliberate approach while many others enter and manage biotech technology transfer relationships in a slipshod, ineffective fashion that results in high project failure rates.

Discover...

- Why is biotech technology transfer rising so quickly?
- Which types of biotech technology transfer approaches are currently most common?
- Which trends will further boost biotech technology transfer in the future?
- What are the most common reasons for the failure of biotech technology transfers?
- What is the most common pitfall of biotech technology transfer, even on well structured projects?
- Which major drug makers have achieved significant success as sponsors in biotech technology transfer?
- Why is biotech technology transfer to Asia growing so quickly?
- Why will future biotech technology transfer deal values growth decline in the future?

Table of Contents

EXECUTIVE SUMMARY

- Overview of biotech tech transfer
- Why biotech tech transfer deals fail
- Strategies to ensure successful biotech tech transfer deals
- The future of biotech tech transfer deals

CHAPTER 1 OVERVIEW OF BIOTECH TECH TRANSFER

- Summary
- The biotechnology industry today
 - Biotechnology technologies and techniques
 - Proliferation of investigational products
 - Funding issues
 - Need to partner to advance product development
 - The emergence of biotechnology brokers
- Drug development challenges
 - More complicated disease targets
 - Escalating costs
 - Increased regulatory scrutiny
 - Diminished in-house R&D resources
- Types of biotech tech transfer relationships
 - Academic R&D infusions
 - Biotech biotech deals
 - Pharma biotech alliances
 - Licensing
 - R&D collaborations
 - Sales, distribution and co-marketing agreements
 - Joint ventures
 - Acquisitions
- Volume of recent deals
- Relationship trends
 - Volume and value
 - Ownership
- Conclusion

CHAPTER 2 WHY BIOTECH TECH TRANSFER DEALS FAIL

- Summary
- High failure rates
 - Symptoms of deal failure
 - Factors that do not affect deal failure
- Implications of deal failure
 - Impact on technology developers
 - Impact on technology sponsors
 - Lost value of failed deals
- Main causes of biotech tech transfer failure
 - Due diligence failures

- Technology performance
- Patent issues
- Developer organization strength
- Deal structure
 - Financial compensation
 - Management changes
 - Cultural differences
 - Project organization and expectations
 - Other preventable problems
 - Technology failure

- Conclusion

CHAPTER 3 STRATEGIES TO ENSURE SUCCESSFUL BIOTECH TECH TRANSFER DEALS

- Summary
- Measures of success
 - Success for the technology developer
 - Success for the technology sponsor
- Key biotech tech transfer strategies
 - Strategies for both technology developers and sponsors
 - Meeting technology challenges
 - Strategies for technology developers
 - Optimizing resources
 - Thinking like a customer
 - Working with professional tech transfer organizations
 - Prolific publishing
 - Strategies for technology sponsors
 - Thorough technology identification and due diligence
 - Structuring innovative deal terms
 - Addressing compensation issues
 - Fostering an entrepreneurial developer environment
 - Ensuring effective alliance management
 - Navigating cultural chasms
 - Addressing international intellectual property challenges
- Conclusion

CHAPTER 4 THE FUTURE OF BIOTECH TECH TRANSFER DEALS

- Summary
- Introduction
- The future of drug development
 - Impact of the economy
 - US healthcare reform
 - Biosimilars
- Biotechnology in 2010 - 2015
 - Where biotech fits into Big Pharma
 - Dedicated biotechnology companies
- Biotech tech transfer deal trends 2010 - 2015
 - Volume and value

Table of Contents

- Ownership
- Intellectual property issues
- Success rates
- Conclusion

INDEX

LIST OF FIGURES

- Frequency of biotech tech transfer deals by type of institution
- Number and volume of biopartnering deals, 1997 - 2009
- Acquisitions as a proportion of biotech tech transfer deals,
- Characteristics of biotech tech transfer failure causes
- Relative importance to sponsor of technology developer
- Strategies to optimize biotech tech transfer opportunities
- Biopharmaceutical vs. other pharmaceutical sales, 2009 - 2015
- Impact of industry and economic trends on conventional and biotech drug developers, 2009 - 2015
- Relative importance of biotechnology for leading pharmaceutical companies, 2009 vs. 2015
- Number and average size of global biotech companies, 2009 - 2015
- Number and volume of biopartnering deals, 2009 - 2015

LIST OF TABLES

- Definition of biotechnology techniques
- Biotech tech transfer deals, 2009
- Biotech tech transfer deals, 2009 (Contd.)
- Biotech tech transfer deals, 2009 (Contd.)
- Biotech tech transfer deals, 2009 (Contd.)
- Biotech tech transfer deals, 2009 (Contd.)
- Biotech tech transfer deals, 2009 (Contd.)
- Biotech tech transfer deals, 2009 (Contd.)
- Biotech tech transfer deals, 2009 (Contd.)
- Biotech tech transfer deals, 2009 (Contd.)
- Biotech tech transfer deals, 2009 (Contd.)
- Biotech tech transfer deals, 2009 (Contd.)
- Biotech tech transfer deals, 2009 (Contd.)
- Biotech tech transfer deals, 2009 (Contd.)
- Biotech tech transfer deals, 2009 (Contd.)
- Biotech tech transfer deals, 2009 (Contd.)
- Biotech tech transfer deals, 2009 (Contd.)
- Technology transfer areas of interest for Merck & Co., 2010

- Technology transfer areas of interest for Merck & Co., 2010 (Contd.)
- Novartis private equity fund holdings, 2010
- Novartis private equity fund holdings, 2010 (Contd.)
- Novartis private equity fund holdings, 2010 (Contd.)
- Novartis private equity fund holdings, 2010 (Contd.)
- Millions of older and overweight persons in the US and EU, 2009 - 2015
- Biosimilars approved in the US and EU, 2010