TOPIC 12

DISCUSSION ON METHODOLOGY APPLIED IN THE CASE STUDIES

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Regional Workshop

IP Valuation for Biotechnology and Pharmaceutical Industry

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YSIOS CAPITAL

Methodology Applied in the Case Studies

SWOT Is the Outcome of a Thorough Due Diligence Process

Strengths	Weaknesses
• Simple and robust scientific and medical concept • Abbreviated and less costly regulatory development	• First time working with the team • Company's headquarters not close
Opportunities	**Threats**
• Unmet medical need and huge market opportunity • Potential for a slowdown in disease progression • Concept can be extended to other combinations of AChEIs and antidotes	• Perceived risk of generic challenge at exit • Disappointing clinical results • New CEO may not fit in the company's athmosphere

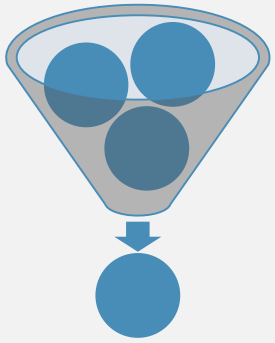
Methodology Applied in the Case Studies

Due Diligence Is an Integral Systematic Process from Screening to Deal Making

Screening

Investment Team

Identification of opportunities



Initial Due Diligence and Term Sheet

Science, clinical-regulatory, business

Advisors

Preliminary Due Diligence

- Science and technology review
- First assessments from experts
- Basic financials
- Investment report

Investment Committee

Initial assessment of the investment opportunity

- Price/Valuation
- Term Sheet

Confirmatory Due Diligence and Closing

Science, business, legal, **IP**

Advisors

Confirmatory Due Diligence

- Science and technology review: expert reports, legal, finance and intellectual property

Investment Committee

Decision

- Legal structure
- Financial structure
- Syndication with other investors
- Investment and Shareholders Agreements

02 Practical Example: Chase Pharmaceuticals

Returns Analysis Based on Potential Upfront Values

			Base Case			
Upfront Value	$50 M	$125 M	$150 M	$200 M	$250 M	$300 M
Multiple	1.9x	4.6x	5.6x	7.4x	9.3x	11.1x

Source: Own Analysis. The figures above are just an example for explanatory purposes only. They do not correspond to the actual analysis for this investment

How Do We Calculate the Multiple on Investment?

$$Multiple\ on\ Investment = \frac{Potential\ Exit\ Proceeds}{Money\ Invested} = \frac{Ownership\ \% \times Upfront\ Value}{Money\ Invested}$$

$$Multiple\ on\ Investment(\$150M) = \frac{37\% \times \$150\ M}{\$10\ M} = 5.6$$

02 Practical Example: Chase Pharmaceuticals

Venture Capital Method: How to Determine the Ownership % and the Pre-Money

$$Multiple\ on\ Investment = \frac{Ownership\ \% \times Upfront\ Value}{Money\ Invested} = \frac{\frac{Money\ Invested}{Postmoney} \times Upfront\ Value}{Money\ Invested}$$

$$= \frac{\frac{Money\ Invested}{Premoney + Round\ size} \times Upfront\ Value}{Money\ Invested}$$

$$5.6 = \frac{\frac{\$10M}{Premoney + \$21M} \times \$150M}{\$10M} \rightarrow \boxed{Premoney = \$6M}$$

$$Ownership\ \% = \frac{Money\ Invested}{Postmoney} = \frac{\$10\ M}{\$6\ M + \$21\ M} = \boxed{37\%}$$

02 Practical Example: Chase Pharmaceuticals

Realized and Potential Returns after Transaction

		Realized	Base Case			Potential
Upfront Value	$50 M	$125 M	$150 M	$200 M	$250 M	$1000 M
Multiple	1.9x	4.6x	5.6x	7.4x	9.3x	37.0x
Proceeds		$46M	$56M			$370M

Source: Own Analysis. The figures above are just an example for explanatory purposes only. They do not correspond to the actual analysis for this investment

02 Practical Example: Chase Pharmaceuticals

IRR Calculation

$$NPV = \sum_{t=0}^{n} \left(\frac{CF_t}{(1+r)^t} \right)$$

$$0 = -\$10\,M\ \frac{0}{(1+r)^1} + \frac{\$46M}{(1+r)^2} \rightarrow r = IRR = 1.15 = 115\%$$

2014 2015 2016

Let's Prove It

$$\$10M \times (1 + 1.15) \times (1 + 1.15) = \$46\,M$$

Year 1 Year 2