

Quantitative Deal Structuring Workshop for Drug Delivery Business Development Professionals

The structure of collaborative business deals is critical for nearly all companies in the drug delivery industry. Yet many business development executives still structure these important agreements using only comparable business deals to guide them. A founding principle of any investment decision, such as structuring a collaborative deal, is the relationship between risk and return. Deal structures of higher risk should always have greater potential returns than structures of lower risk. In order to achieve this important relationship, decisions about the final financial terms of collaborative agreements should *always* be determined using specific valuation methods. This workshop will present the basic theory and most appropriate tools for business development executives to use in this important process.

Through lectures and case studies, the workshop will allow participants to understand and appreciate how financial modeling combined with modern tools of decision analysis permits business development executives to achieve optimal agreement structures. Knowledge of these principles and techniques will improve the ability of executives in the drug delivery industry to draft value-maximizing term sheets.

The workshop was originally crafted to help new and established business development personnel in the life science industries construct better collaborative agreements. This is especially important considering many executives hold advanced degrees in the sciences, but have little or no background in business or simply have little experience in deal-making. Therefore, the most effective business development executive is able not only to understand a company's science and technology, but is also able to value it. Thus, this workshop bridges this science-business gap by providing attendees both the knowledge and the tools necessary for technology valuation and quantitative collaborative deal structuring.

The workshop leader is currently finishing a complete valuation tutorial for life science executives and decision makers: *Medical Venturing: Valuation and Quantitative Deal Structuring in the Biotechnology, Pharmaceutical and Medical Device Industries*. Attendees that register in advance for the workshop will receive a complementary copy of the tutorial's first chapter, and a 10% discount on the price of the textbook and accompany manual: *Guide to Financial Models Accompanying Medical Venturing*.

OBJECTIVES:

- **Introduction: Why successful collaborative agreements are strongly dependent on accurate deal value and risk assessment – An example.**
- **How much belongs to the licensor and licensee?**
- **Introduction to valuation of tangible and intangible assets.**
 - Definitions
 - Collaborative business agreements are intangible assets
 - Possible methods of valuation:
 - The Cost Method
 - The Market Method
 - The Income Method
- **Basic financial theory for business development professionals**
 - The time value of money – one of the most important principals in finance
 - The net present value rule
 - Introduction to the discount rate – the Capital Asset Pricing Model (CAPM)
 - Diversification and return
- **Risk and the discount rate**
 - What is risk?
 - Risk and return in the stock market
 - How is risk measured when quantitatively valuing collaborative deals?
 - Primary tools of risk analysis:
 - Monte Carlo analysis
 - Stochastic optimization
 - Why use these tools in the life sciences?
 - The cone of uncertainty
- **The Income Method – The superior approach for valuing and structuring collaborative business deals and high-technology companies**
 - Collaborative business agreements are investment projects – introduction to capital budgeting as applied to the life science industry
 - A brief demonstration
- **Collaborative deals are risky asset portfolios**
 - Introduction to Markowitz portfolio theory
 - Why collaborative agreements are risky asset portfolios
 - The risk and return relationship as applied to collaborative business deals

- How portfolio theory is used in valuing and structuring collaborative business agreements in the life science industry.
- **Which is the best deal? – Valuing a single out-licensing deal and comparing alternative structures.**
 - Introduction to the deal
 - Important assumptions
 - The value and risk of three structures: A, B & C
 - Which is the best deal?
- **Minimum variance frontier analysis when out-licensing**
 - Basic theory
 - Applying the method to collaborative business agreements
 - A demonstration
- **Summary and conclusion**

About Your Workshop Leader:

Charles Hardy earned his Ph.D. at the University of Washington in Pathobiology and an MBA at the University of Iowa in finance. For the past eight years, he has worked as a senior financial and business development executive and consultant. His knowledge and experience in both the technical and financial aspects of the industry have given him a unique insight into the challenges many business development professionals face in technology and product valuation. He has spoken at a number of deal making summits and biotechnology and pharmaceutical conferences throughout the United States. Dr. Hardy's web site lists a large amount of information and resources on company and deal valuation and corporate finance: www.charlesthardyphdmba.com.