# Advanced Financial Modeling for Biopharma Startups Training Course

Professional Development Training Course Outline

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| **Category** | Biotechnology and Pharmaceutical Development | **Duration** | 10 Days |
| **Base Fee** | $4,000 USD | **Delivery Mode** | Online / On-site Hybrid |

## Course Introduction

The Biotechnology and Pharmaceutical startup landscape is characterized by long development timelines, immense R&D intensity, significant clinical trial risk, and often pre-revenue financial structures. Traditional financial modeling techniques fall short in accurately capturing and communicating value in this unique environment. Success in securing Venture Capital (VC), navigating licensing deals, and making crucial go/no-go decisions is fundamentally dependent on a robust, dynamic, and investor-ready financial model. Advanced Financial Modeling for Biopharma Startups Training Course provides the specialized financial modeling mastery needed to translate complex scientific pipelines and Intellectual Property (IP) into a compelling, data-driven financial narrative, ensuring optimal capital raising and strategic execution. Keywords: Biopharma Valuation, Clinical Trial Risk, Pre-revenue Modeling, R&D Intensity, Investor-ready, Venture Capital, Licensing Deals, Financial Modeling Mastery.

This program moves beyond basic spreadsheet mechanics to focus on best-practice financial modeling tailored for early-stage Life Sciences companies. Participants will master complex valuation methodologies, most notably the Risk-Adjusted Net Present Value, which is critical for quantifying asset value by integrating clinical and regulatory probabilities of success. The curriculum emphasizes building flexible, driver-based models that can dynamically stress-test various scenarios from regulatory setbacks to accelerated market penetration providing clear insight into cash burn rate, funding runway, and potential investor returns. Ultimately, the course's goal is to empower participants to become strategic finance partners who can confidently articulate the true financial potential and risk profile of a Biopharma startup to stakeholders and investors. Keywords: Risk-Adjusted NPV, Scenario Analysis, Cash Burn, Funding Runway, Driver-Based Modeling, Best-Practice Financial Modeling, Strategic Finance, Life Sciences Valuation.

## Programme Curriculum

**Advanced Financial Modeling for Biopharma Startups Training Course**

**Introduction**

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**Course Duration**

10 days

**Course Objectives**

Upon completion, participants will be able to:

1. Construct end-to-end, Biopharma-specific 3-Statement Financial Models
2. Master the Risk-Adjusted Net Present Value methodology for Pipeline Valuation.
3. Accurately forecast complex R&D Expenses including Clinical Trial Costs by phase and site.
4. Develop sophisticated Bottom-Up Revenue Forecasts based on epidemiology, market share, and peak sales potential.
5. Integrate regulatory timelines and probability of success (PoS) metrics into all financial projections.
6. Model intricate financing structures, including convertible notes, warrants, and VC dilution.
7. Perform advanced Scenario and Sensitivity Analysis to stress-test key variables like trial success rate and generic entry.
8. Calculate and optimize Cash Burn Rate and determine the crucial Funding Runway.
9. Apply Comparable Company Analysis (CCA) and Precedent Transaction Analysis (PTA) using Biopharma-specific multiples.
10. Model and value complex Strategic Partnerships and Licensing agreements
11. Build robust Cap Tables and analyze Investor Dilution across multiple funding rounds
12. Design and present Executive Financial Dashboards for Board and Investor Reporting.
13. Utilize Advanced Excel Functions and Modeling Best Practices to ensure flexibility, auditability, and efficiency.

**Target Audience**

1. Biopharma & Biotech Entrepreneurs/Founders.

2. Finance Managers & Analysts.
3. Venture Capital and Private Equity Analysts focused on Biotech Investment.
4. Business Development & Licensing Professionals in Pharma/Biotech.
5. Equity Research Analysts.
6. CFOs and senior finance executives of Early-Stage Biopharma Startups.
7. Consultants.
8. Project Managers.

**Course Modules**

**Module 1: Biopharma Modeling Foundations & Best Practices**

- Structure of a robust, auditable 3-Statement Model for pre-revenue companies.
- Advanced Excel best practices for model flexibility and logic integrity
- Handling the Long-Term Financial Horizon inherent in drug development.
- Integrating GAAP/IFRS principles for R&D capitalization/expensing.
- Case Study: Auditing an Existing VC-Submitted Biopharma Model for common errors.

**Module 2: R&D and Clinical Trial Cost Forecasting**

- Forecasting by Clinical Phase and Cost-per-Patient.
- Modeling specialized costs: CRO fees, Manufacturing, and Headcount expenses.
- Incorporating Scenario Switches for different trial durations or outcomes.
- Depreciation and Capital Expenditure modeling for specialized lab equipment.
- Case Study: Forecasting Costs for a Multi-Site Phase 2 Oncology Trial.

**Module 3: Bottom-Up Revenue Modeling for Drug Sales**

- Epidemiology and Target Patient Population analysis.
- Modeling Market Penetration and Product Launch Curve
- Determining Pricing Strategies and accounting for Reimbursement dynamics.
- Forecasting Peak Sales and the impact of Loss of Exclusivity (LOE)/Generic Entry.
- Case Study: Modeling Revenue for a Novel Gene Therapy in an Orphan Disease Market.

**Module 4: Risk-Adjusted Net Present Value Core Mechanics**

- Defining and quantifying Clinical and Regulatory Probabilities of Success (PoS).
- Calculating Risk-Adjusted Cash Flows at each stage of the Drug Development Pipeline.
- Determining the appropriate Discount Rate and WACC for a high-risk startup.
- Integrating Tax and Net Operating Loss (NOL) utilization into the calculation.
- Case Study: Valuing a Preclinical Asset using benchmark PoS and DCF.

**Module 5: Advanced rNPV Sensitivity and Break-Even Analysis**

- One- and Two-Dimensional Data Tables for Sensitivity Analysis on PoS and Peak Sales.
- Using Goal Seek to determine the necessary Peak Market Share for a minimum valuation.
- Visualizing rNPV Waterfall to show value creation at each clinical milestone.
- Modeling Real Options in valuation.
- Case Study: Break-Even Analysis on a Phase 3 Asset to determine required patient volume.

**Module 6: Cap Table and Investor Dilution**

- Building a dynamic Capitalization Table from founder shares to Series A/B.
- Modeling the impact of Stock Options and Warrants.
- Calculating Investor Dilution pre- and post-money valuation for multiple rounds.
- Modeling Liquidation Preferences and their impact on founder returns.
- Case Study: Analyzing a Series A Term Sheet and its impact on the fully-diluted Cap Table.

**Module 7: Forecasting Cash Burn and Funding Runway**

- Calculating Net Cash Flow from the 3-Statement Model and defining Cash Burn Rate.
- Projecting Funding Runway and determining the optimal timing for the next Capital Raise.
- Modeling a Cash Flow Waterfall to visualize financing gaps and debt repayment.
- Integrating Working Capital changes specific to early-stage inventory and receivables.
- Case Study: Determining the Minimum Series B Raise to fund operations through Phase 3.

**Module 8: Modeling Strategic Partnerships & Licensing Deals**

- Modeling Upfront Payments and Development/Regulatory Milestones.
- Forecasting complex Sales Royalty Streams.
- Analyzing the financial impact of Co-Development agreements and Profit-Share structures.
- Accounting for potential Sub-Licensing revenue and associated costs.
- Case Study: Valuing a European Licensing Deal based on tiered royalty thresholds.

**Module 9: Comparable Company and Transaction Analysis**

- Identifying true Biopharma Comparables based on stage, therapeutic area, and technology platform.
- Using Biotech-Specific Multiples
- Gathering and normalizing financial data from public company filings and deal databases.
- Performing Precedent Transaction Analysis for M&A and asset sales.
- Case Study: Benchmarking a Series B Valuation against recent public and private transactions.

**Module 10: Advanced Scenarios and Data Visualization**

- Building an effective Scenario Manager using Excel tools.
- Creating dynamic Dashboards to visualize key metrics
- Using Index/Match and Data Validation for robust assumption switching.
- Techniques for clear, concise presentation of complex financial results to non-finance audiences.
- Case Study: Building a Board-Ready Financial Dashboard for Quarterly Reporting.

**Module 11: Modeling Debt and Strategic Financing**

- Modeling various debt instruments
- Structuring a Debt Schedule with principal and interest calculations.
- Evaluating the trade-offs between Equity and Venture Debt financing for growth.
- Handling the complexity of Circular References.
- Case Study: Evaluating a Venture Debt Term Sheet for a pre-commercial Biopharma.

**Module 12: M&A and Exit Modeling for Startups**

- Modeling a Terminal Value based on a long-term growth rate or exit multiple.
- Calculating Equity Value and potential Investor Returns at different exit dates.
- Modeling the financial impact of a potential Merger or Acquisition
- Analyzing the value of Acquired IP and its impact on the combined entity's balance sheet.

- Case Study: Forecasting Exit Valuation for a successful IPO or Acquisition scenario.

**Module 13: Operational and Commercial Expense Modeling**

- Detailed forecasting of Sales & Marketing expenses post-commercialization.
- Modeling the build-out of a Sales Force
- Forecasting Cost of Goods Sold and Gross Margin for manufactured products.
- Modeling General & Administrative costs and allocating overhead.
- Case Study: Determining Optimal Sales Force Sizing based on projected peak sales.

**Module 14: Biopharma-Specific Risk and Mitigation Modeling**

- Modeling the impact of Development Delays on the financial timeline and value.
- Quantifying the financial risk of Trial Failure and the associated sunk costs.
- Using Monte Carlo Simulation for advanced risk modeling.
- Modeling Patent Expiration and the resulting revenue drop-off.
- Case Study: Modeling a 6-Month Regulatory Delay and its impact on rNPV and Runway.

**Module 15: Financial Storytelling and Investor Pitch Preparation**

- Translating complex financial models into a clear, concise Investor Pitch Deck.
- Highlighting the Value Inflection Points in the financial forecast.
- Defending Model Assumptions to skeptical investors and due diligence teams.
- Creating a Tear Sheet of key financial metrics for quick reference.
- Case Study: Simulated Investor Q&A on the key financial drivers and risks of the modeled Biopharma startup.

**Training Methodology**

The course employs an intensive Case Study and Workshop methodology, focused on hands-on model building.

- Instructor-Led Lectures.
- Step-by-Step Model Construction.
- Real-World Case Studies.
- Peer Review and Feedback.
- Q&A and Interactive Problem Solving.

**Register as a group from 3 participants for a Discount**

**Send us an email: info@fineskilltrainingcenter.org or call** +254769199797

**Certification**

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

**Tailor-Made Course**

We also offer tailor-made courses based on your needs.

**Key Notes**

**a.** The participant must be conversant with English.

**b.** Upon completion of training the participant will be issued with an Authorized Training Certificate

**c.** Course duration is flexible and the contents can be modified to fit any number of days.

**d.** The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

**e.** One-year post-training support Consultation and Coaching provided after the course.

**f.** Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

## Upcoming Scheduled Sessions

| Start Date | End Date | Location | Price |
|---|---|---|---|
| **23 Nov 2026** | 04 Dec 2026 | Online | $2,000 |
| **23 Nov 2026** | 04 Dec 2026 | Physical | $3,000 |
| **23 Nov 2026** | 04 Dec 2026 | Physical | $6,000 |
| **23 Nov 2026** | 04 Dec 2026 | Physical | $6,000 |
| **23 Nov 2026** | 04 Dec 2026 | Physical | $12,000 |
| **23 Nov 2026** | 04 Dec 2026 | Physical | $9,000 |
| **23 Nov 2026** | 04 Dec 2026 | Physical | $12,000 |
| **23 Nov 2026** | 04 Dec 2026 | Physical | $12,000 |

Ready to enroll or request a customized program? Book online or contact us:

**Register Online Now**

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