

Life Sciences

Applied Strategies is committed to helping biotech and pharma companies improve performance, increase profitability, and experience effective growth. We focus exclusively in the life sciences and global health sectors, and our consultants are content experts with real-world product development and commercialization experience. We work with a wide range of companies to maximize the value of their assets, their portfolios, and their organizations. With deep experience guiding organizational change, managing product candidate portfolios, and building line functions in life sciences organizations similar to yours, our team is highly capable of providing the expertise you require when seeking consulting support. Expert analysis and assessments – built on a foundation of solid, leading-edge technology – enable our clients to thoroughly evaluate their alternatives. We help organizations confidently analyze, understand, and convey which options will generate the greatest business value to all stakeholders.

Applied Strategies is familiar with the issues confronting life sciences organizations of every size.

For small companies: Applied Strategies supports you in charting a clear path to profitability, acknowledging the challenges created by limited resources. Primarily – and most critically – we analyze the time, risk, cost, and potential value associated with your development strategy options to enable informed decisions and contingency plans that protect your product's future. We also help you determine if and when partnering or acquisition is an appropriate path, and if so, provide the analytical support to ensure fair negotiations.

For mid-size companies: Applied Strategies assists you in finding clarity of direction when faced with the significant risk and uncertainty that accompanies growth. Our team designs processes and tools that support effective management of your increasingly complex portfolio. We work with you to maximize the value of each asset while recognizing the necessity to make product-by-product trade-offs that will ensure an optimized portfolio. Additionally, we assist you in structuring the organization for sustainable growth by designing and implementing effective decision processes and matrix-oriented organizations.

For large corporations: Given increased global competition and market complexity, Applied Strategies provides the tools and processes to efficiently diagnose your R&D and in-market product portfolios. Our approach will identify underachieving or inappropriately resourced programs, allowing you to develop more value-creating product alternatives, including emerging market strategies. The Applied Strategies team employs leading-edge software tools to conduct analyses in real time, enabling your project and management teams to immediately gain insight into the key drivers of value and risk. We also help you map your organization's utilization of human resources to identify areas where technology solutions can streamline work processes and refocus your talent on the most important work activities.

KEY CAPABILITIES

Insight/People: Applied Strategies' content experts are experienced senior industry specialists and scientists. They balance deep insight with a highly analytical, quantitative approach to formulate the strategies critical to your organization's success in today's competitive and complex life sciences environment.

Innovation/Technology: Applied Strategies designs and builds analytically powerful tools that establish a foundation to support ongoing strategic planning, analysis, and decision making for immediate use and long-term performance. Our proven technology is user friendly, yet leading-edge.

Impact/Methods: Applied Strategies supports decision making with evidence-based analytics. We back our superior consulting services with industry best practice methodologies and state-of-the-art modeling techniques. The results drive improved ROI, focused strategic plans, and enhanced organizational effectiveness.

Global Health

In addition to life sciences, Applied Strategies has a significant footprint in global health. We understand that emerging market decision makers must align the needs of developing countries with global donors seeking significant health impact for their investments, while also motivating life sciences companies to produce medicines and vaccines in high volumes at low cost. We collaborate with public sector and industry organizations throughout the world to create short- and long-term strategies that create win-win-win solutions.

Our partnerships in the global health sector include the Bill & Melinda Gates Foundation, the GAVI Alliance, and The World Bank, as well as public and private partnership organizations and schools of public health.

Our engagements include efforts focused on:

- New product development strategies
- New product introduction strategies
- Investment portfolio prioritization
- Global market characterizations
- Innovative financing mechanism evaluations
- Strategic demand forecasts

Technology: Powerful Solutions and Tools

The Applied Strategies technology team designs and delivers powerful decision support tools by leveraging the latest analytic frameworks, state-of-the-art software, and advanced modeling techniques. Although our competitors may claim the same, our clients tell us that Applied Strategies' solutions and tools are the best in the marketplace. Our tools bolster organizational efficiency and empower people because we purposely engineer them for ongoing, long-term use. These user-friendly software products produce credible, consistent analysis and decision-making capabilities:

Cennium ValueDriver™, Applied Strategies' flagship decision analytic-based asset valuation tool, evaluates alternative product development strategies and provides insight into the key drivers of program value and risk. The menu-driven interface guides the analyst through analysis set-up and input. Standard analyses are conducted with the touch of a button, and more sophisticated analyses can be defined with a few key strokes. As an added benefit, all analysis inputs and outputs can be readily exported into presentation-ready PowerPoint slides. ValueDriver is the perfect tool for those responsible for asset valuation and portfolio management activities.

Cennium Vaccine Financial Implications & Risk Model (Vaccine FIRM™), Applied Strategies' extremely flexible and data-rich forecasting tool, creates demand forecasts and donor and supplier ROI analyses for any type of vaccine for any market of interest. Analyses can be conducted by country, by region, or on a global basis given multiple competitive environments, vaccine pricing, and donor funding scenarios. Vaccine FIRM is the perfect tool for those considering emerging market strategies and significant global capacity scale-up.

Our proprietary software products are among the most user-friendly in the market, and we provide detailed product documentation, user training, and ongoing product support. Applied Strategies also designs and builds tailored solutions to address individual client needs and challenges, often providing unparalleled advantages over standard spreadsheet modeling.

Demonstrated Leadership

Setting Corporate Strategy: The new CEO of a top-ten biopharmaceutical company, with three products in the market and seven in development, launched a strategy initiative to determine the company's time-to-profitability and to develop its five-year plan. Applied Strategies was asked to work with project and management teams to analyze the company's two therapeutic area portfolios, including alternative development plans to speed products to market or increase revenues in the target profitability window. Using our industry best practice valuation methodology, our team helped redirect project teams to maximize value, accelerate revenue, and minimize spend. Our analysis of the selected development plans identified a significant earnings gap and an unacceptable earnings growth over the long-range planning period. As a result, Applied Strategies worked with the client to identify strategic options for addressing these problems in the target profitability window.

Developing Disease Area Strategy: A medium-sized biotech company had just completed a Phase III study that showed a positive trend but failed to meet its primary efficacy endpoint. The company needed to determine the next-best clinical study that would maximize its ability to show efficacy. In addition, the company had in-licensed another distinct molecule with a different mechanism of action that had the potential to treat the same disease. Applied Strategies collaborated with the client to create several clinical development options for each molecule. Because both molecules had development potential for the same indication, we carefully evaluated each option to determine the optimal timing of launch, mitigate cannibalization of the first product by the second, address pricing issues for each, and develop an appropriate pricing and market positioning strategy for the two products. Applied Strategies was asked to present the results to the Board of Directors, who agreed with the final recommendations to fund both programs despite significant pressure to reduce R&D spending.

Aligning an R&D Portfolio: The Malaria Vaccine Initiative (MVI), with a mission to accelerate the availability and introduction of malaria vaccines in the developing world, had a large portfolio of promising vaccine candidates to prioritize and manage. Applied Strategies worked with MVI to define the metrics for evaluating and optimizing MVI's R&D portfolio. We also designed a comprehensive portfolio management process that enabled MVI to appropriately engage the organization and the scientific and global health community in its R&D portfolio investment decisions. Based on the initial portfolio review, Applied Strategies collaborated with MVI to formulate its five-year R&D strategy to drive future portfolio management investments and to build a case for core grant renewal.

Accelerating New Product Introduction: The Bill & Melinda Gates Foundation, GAVI, and The World Bank commissioned Applied Strategies to determine whether it was possible to accelerate new vaccine adoption decision making by developing countries eligible for GAVI funding. It was also necessary to assess the financial implications of introducing the profusion of available new vaccines into these countries. Working across several global health sectors, Applied Strategies derived key country decision-making criteria for new vaccine adoption, assessed the adoption readiness of GAVI-eligible countries, and analyzed the financial implications to donors and countries of various potential adoption scenarios. To manage the significant amount of data involved, the Applied Strategies team designed, developed, and implemented a server-based forecasting tool that could be accessed by each of the project sponsors. Based on these initial analyses, the project sponsors were able to plan more effectively and leverage the decision support tool to forecast their financial obligations on an ongoing basis.

Applied Strategies' Executive Team

The combined experience of Applied Strategies' executive team forms the foundation from which we have grown – strategy, science, and technology. Their years in consulting and industry give them a rare perspective and deep understanding of the risk and uncertainty that life sciences organizations face. Our executive team leads the firm in helping companies understand the trade-offs between all viable options, whether the goal is to increase ROI, reduce risk, structure the portfolio for acquisition, or identify partners to accelerate growth. The methodologies underlying our leading-edge technology reflect decades of combined experience in the life sciences sector, resulting in the delivery of effective tools to clients for immediate and long-term use.



(left to right) Craig Shaffer, Sandra Wrobel, and Dr. Carol Marzetta

Sandra Wrobel

CEO & Managing Director

Sandy leads Applied Strategies' extensive work with companies in the pharmaceutical and biotechnology industries as well as with global and public health organizations. She has over 20 years of experience in strategy development, R&D portfolio management, business process design and implementation, and organizational design and development. Sandy is frequently called on to address an organization's most complex problems, resulting in a clear framework for identifying, analyzing, and selecting a productive and value-adding path forward. Her framing of complex problems is an integral factor in designing project engagements that support decision making under uncertainty. Sandy's work has contributed significantly to the technology solutions that Applied Strategies offers our clients.

Dr. Carol Marzetta

Chief Scientific Officer

Carol has nearly 20 years of experience in vaccines and small molecule and biologic drug development in both global pharmaceutical and emerging biotechnology companies. Her background is unique in that she has served as a drug discovery scientist, managed product teams through clinical development to launch, and built and led R&D portfolio management groups. She specializes in creating and implementing product development strategies, integrating project and line management team processes, and designing portfolio prioritization and resource allocation processes and methodologies.

Craig Shaffer

*VP Applied Analytics and
Technology Development*

Craig is an expert in applying business management and risk-based decision analysis techniques. He is a leader in strategy development, portfolio optimization, and decision system design. He and his team have generated software solutions to optimize product development decisions, improve sales forecasting in global markets, and understand the patient flow dynamics of complex diseases. Under Craig's leadership, Applied Strategies launched Cennium ValueDriver, our analytical tool that serves as the asset valuation platform for key product development plan decisions, as well as for generating the strategic alternatives for supporting portfolio prioritization and portfolio strategy decision making.

Organizations count on Applied Strategies to deliver significant and measurable results. We support biotech and pharmaceutical organizations by providing content-rich and analytically sound strategy development processes and decision-support tools to maximize organizational impact on both health and shareholder value.

For additional information about **Applied Strategies** and our approach, please contact Carol Marzetta, Chief Scientific Officer, at cmarzetta@appliedstrategies.com or 650.401.3002.