

Biodel inc

Business, Marketing



BUAD 490 3/14/13 Team Written Case Analysis (Concise) Biodel, Inc. BIODEL INC. EXECUTIVE SUMMARY Biodel's use of biotechnology expertise in the three prime areas of Cell Biology, Molecular Biology, and Immunodiagnostics has led their company into some great opportunities. Biodel created a synthetic serum to replace fetal calf serum and horse serum, and provide a more consistently available product for scientific researchers. Biodel's Molecular Biology division used DNA technology to gain 60% of the market share of growth factors and stock the largest collection of commercially available synthetic nucleotides, which was 50% of their sales.

Biodel's research and development in Immunodiagnostics led to the invention of DEMA, a non-radioactive method for measuring a wide array of biologically important substance. The intelligence and vision of Dr. Oscar Feldman drove Biodel to a position of leadership in the biotechnology industry. Dr. Feldman has applied innovations in Cell Biology, Molecular Biology and Immunodiagnostics to increase market share for Biodel's products. Dr. Feldman's scientific friends and academic contacts offered Biodel high-quality technological advice and links to scientific community, and led to sophisticated research and development advances.

Now the company is at a crossroad with decisions and direction necessary. In addition to strategic planning, the company would benefit from a modest restructuring to streamline operations and prepare for unexpected events. Their future investments should be in areas where patent protection is likely, and in directions and projects that exploit their native expertise in molecular biology and genetic engineering. These technologies seem likely to transform healthcare in the next two decades.

Having survived the threat of bankruptcy, Biodel now has a more balanced contract research portfolio and is poised to develop an even greater impact in the future. CURRENT SITUATION Biodel's projected revenues for 1980 consist of \$1 million in contract research, and around \$1.5 million in research products. The contract research revenue was split 70% from industrial research, and 30% government research. This research included work in Biodel's three main fields (molecular biology, cell biology, and immunology) as well as cancer chemotherapy and enzymology.

These contracts are secured by Dr. Feldman through his relationships with other scientists. The revenue from research products also comes from the three main fields of Biodel. Nucleotides from the molecular biology area account for 50% of revenues, cell growth factors from the cell biology field account for 40%, and immunodiagnosics products account for the other 10%. Research product sales have been growing 35% over the last few years, even with limited marketing efforts. However, Biodel is being outcompeted in the immunodiagnosics market and further growth is not being pursued.

Biodel has a very small staff, with the company split up into five different sections: the comptroller, advertising and sales, and then an experienced scientist manages each main field of the company. The scientists who manage their fields are all in charge of research and development, production, and even have some marketing responsibility. Dr. Feldman does not employ a marketing manager or a research director, instead filling both roles by himself. Feldman's style of management is very informal, preferring

to walk around and talk to his employees rather than have them do unnecessary paperwork.

The company itself is run more like an academic facility than a business, with the atmosphere more leaning towards challenging each other and making technological advances. In addition, employee turnover is very low so most of the staff is very experienced with the work that the company is doing. The staff is led by Dr. Feldman, who represents the main reason for low employee turnover. Biodel employees describe him as a unique and enthusiastic man, and the reason why the company is so successful. Marketing had been a very inconsistent department, with Dr. Feldman usually assuming all of the major marketing responsibilities.

But when Dr. Feldman decided that he needed to market his company more aggressively he hired Mr. Steve Kaplan who had been a marketing manager at a large pharmaceutical company. However, Mr. Kaplan and Dr. Feldman soon disagreed on who should direct Biodel's marketing strategy. Kaplan proceeded to spend a large amount of money on marketing, including hiring additional salespeople and other staff. These changes resulted in a 65% increase in sales, but marketing costs increased by 500%, which resulted in profits dropping from \$95, 000 in 1978 to \$17, 000 in 1979. As a result, Dr. Feldman is reconsidering Mr.

Kaplan's direction in the marketing department. OPPORTUNITIES First, Biodel had under development a synthetic serum that would be used to satisfy growth requirements in cells. This would be an innovative product that could be a substitute for natural fetal calf serum and horse serum. However, a major problem with the fetal serum is the unstable fluctuation in cost. The
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cost is determined by the supply of the serum and the supply is determined by the number of calves that are slaughtered. The synthetic serum could offer a steady rate. The market is projected at \$50 to \$80 million.

Biodel would have a competitive advantage over the competition and could attain 20% of the market share if they pursue this project. A big problem with this project is the uncertainty that Biodel will be able to receive a patent. That provides a major risk in this investment. Second, another project is available that is extremely intriguing to us. Biodel has the opportunity to produce a new product called DEMA. DEMA is a testing technology based on enzyme membranes rather than radioactivity. This product could be used to test for pregnancy, syphilis, hepatitis, cancer, toxins in food and carcinogens in the environment.

DEMA is a healthier, safer, faster and cheaper way of testing than the radioactive method. There are no hazards or side effects to DEMA and it can provide the same results as radioactive tests. The problem with this project is the financial aspect. It is more expensive than the synthetic serum. Investments could total in the millions and the R costs could range from \$1 to \$3 million. However, this project has drawn the attention of major drug companies who are willing to participate in a joint venture with Biodel, which would help with the costs of the investment. Third, Biodel has been thinking about joining the genetic engineering field.

The company has basic but not wide experience in this field but they have been a major supplier of molecular biology products. At the moment, there are four major competitors in the market; Cetus, Genentech, Genex and Biogen. The basic purpose of this field is to engineer a cell to produce a

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specific biological product. Competitors use the bacterium *E. coli* as their host cell, for the most part. Biodel has the opportunity to enter the market with a new strategy that involves the use of yeast as the host cell instead of *E. coli*. He and three other scientists believe that yeast would be a better host cell than *E. coli*.

Yeast has a biochemical machinery that can allow the growth of medically relevant glycoproteins such as Interferon and Urokinase. These glycoproteins are used to inhibit the multiplication of cancerous cells and to disrupt blood clots. The investment costs for this project would be high, including salaries that Biodel would pay for Dr. Ballantine and three other highly successful scientists to work for them. However, the return on such an investment could be immense. RECOMMENDATIONS 1. The Biodel Board of Directors should hold annual or semi-annual Board meetings to review company progress. Dr. Feldman should delegate more.

The Board should be expanded by 1 or 2 people to achieve greater diversity and breadth of expertise. Succession planning should be considered in case Dr. Feldman died, or a division head left. 2. Mr. Kaplan's marketing group should be streamlined and asked to focus on a marketing strategy for DEMA. The marketing group can probably be reduced to lower costs while maintaining the increase in research product sales. Challenge Kaplan to analyze the marketing group to understand the most valuable parts versus parts that are expendable. 3. Among the growth opportunities to pursue, the synthetic growth factor option does not seem likely to succeed.

Although it is the least expensive investment, there is uncertainty that the patent protection can be obtained. Furthermore, researchers accustomed to

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fetal bovine serum may be unlikely to abandon a tried and true method. In contrast, the DEMA technology is a unique opportunity for Biodel. It eliminates the risks and hazards associated with radioactivity, which researchers would appreciate. There is a high likelihood of patent protection. Based on the information in the case, the company needs a better understanding of how to bring this product to market.

This could be a great project for Kaplan's smaller marketing group. 4. Pursue Genetic Engineering, with the advice and guidance of the four academic experts. This is an important initiative and Biodel's connections with the prize-winning scientists are important. They should be paid per diems and offered stock options. One of the four also should be invited to join the Biodel Board of Directors. APPENDIX A SWOT Analysis S- Strengths Biotechnology special expertise by the 1970's in - (three prime areas of focus/ other fields) 1.

Cell biology - culture technology paid off 60% share growth factor market 40% offspring sales 2. Molecular biology - DNA paid off 60% share growth factor market - stocked largest commercially available synthetic nucleotides (50% of sales) 3. Immunodiagnosics biology a. Sub categories - Cancer chemotherapy - Enzymology Offered high-quality technological advice, numerous links to scientific community, highly sophisticated research and development service Feldman was able to secure contracts with his personal relationships with scientists in the government and industry Low employee turnover

W - Weaknesses Molecular biology - -- researchers used numerous substitutes Immunodiagnosics biology large firms aggressively entered and <https://assignbuster.com/biodel-inc-research-paper-samples/>

has not expanded since 10% of sales of research products -1980 - profitability varied on depending on intensity of product research and development By the 1980's 60% of company's revenue was from commercializing research Reliant on government contracts when they started making cut backs - 85% contracts are government - forcing Biodel into 1st layoff (damaging to long-term potential) 55 employees scientists and technicians --- no marketing manager or research director hired (Feldman filled both positions with widespread contacts and scientific expertise) Staff meetings rare and no regular reports required from subordinates Poor Marketing - Products sold by mail Depends on word of mouth - trade shows, advertising, direct mail, ad phone solicitation --- customer service " almost laughable" O - Opportunities

Goal to manufacture and market biochemical products developed through their own research Cell Biology - synthetic serums to satisfy growth requirements in cell lines of tissue culture - replacing natural fetal calf serum (most widely used, horse serum was 2nd most widely used). Market of 50 million domestically and 80 million worldwide growing at 15%-- no systematic analysis of serum market done Immunodiagnostics- opportunity to enter the market - new test technology based on enzyme membranes rather than radioactivity - new product DEMA - simpler, faster, and less expensive.

Market in excess of \$100 million and has potential to be over \$1 billion. High possibility for a patent and a joint venture with a major drug company. Genetic engineering - exciting advantages/high return on investments Supplier of molecular biology products - nucleotides and synthetic genes

sold - supported by genetic engineers - some cases biodel was soul supplier
T - Threats Relying on government contracts lead them to the threat of
bankruptcy Biodel's spending strategies APPENDIX B