Merck executive summary

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EXECUTIVE SUMMARY Statement of the Problem Merck & Co. , Inc. , a leading pharmaceutical company, faces the threat of the patents of its most popular drugs expiring in 2002. The only way to counter the loss of sales from these drugs going off patent is to develop new drugs in order to refresh the company’s portfolio. LAB Pharmaceuticals, a small pharmaceutical company who specializes in the treatment of neurological disorders, has approached Merck with the opportunity to license Davanrik, a new drug with the potential to treat bothdepressionandobesity.

The drug is currently in pre-clinical development and would still need to pass a seven year and three phase testing process approved by the FDA. Under the licensing agreement, Merck would compensate LAB with an initial fee, milestone payments as the drug progresses through each phase, and royalty on sales. Merck must make a decision on whether or not to license the drug. If Merck does decide to license the drug, it must also decide how much the drug is worth. Discussion A decision will be madeusing both qualitative factors and quantitative analysis. Qualitatively, this opportunity is positive for both Merck and LAB.

Licensing this drug will allow Merck to insert a newly patented compound into the market and to bypass the discovery and preclinical testing phases. By being able to skip those two phases, Merck can go straight to clinical testing saving it six to seven years, which helps Merck deal with its patent life cycle in a more effective manner. LAB has never had a drug successfully complete the FDA approval process in its 15-year history. Its stock price had also fallen by 30% after its most recent FDA denial. Therefore, by licensing

this Davanrik to Merck, LAB would be able to receive some much-needed cash.

A successful transaction between Merck and LAB could also lead to future opportunities. Quantitatively, a decision tree analysis was used to value this opportunity because as long as Merck only accepts projects with a positive expected value it will earn profits more often then losemoney. Through the analysis of the expected value of each possible outcome, the expected value of licensing Davanrikfrom LAB is $13. 98 million including payments to LAB of $16. 68 million. Although the FDA approval process has a 40% Phase Iand a 70% Phase IIfailurerate, the cost f failing early on is only $30 million and $70 million, respectively, relative to the opportunity to earn as much as $1. 28 billion if successful. Recommendation Merck should license Davanrikfrom LAB for no more than $13. 98 million. The company is facedwith the risk of declining profits if new drugs are not developed since many of its patents are expiring soon. Therefore, it is necessary to invest in new drug developments. Also, the expected value of $13. 98 million indicates that this opportunity is profitable and that Merck can receive up to $1. 28 billion by licensing the compound.