## Merck and company: evaluating a drug licensing opportunity



Should Merck license the compound? Merck would be responsible for 1) the approval of Davanrik 2) the manufacture of Danavrik 3) marketing of Danavrik Merck would pay LAB for 1) initial fee 2) royalty on all sales 3) make additional pymts as Danavrik completed each stage of approval process (3 Phases) Additional facts: approval process should take 7 years atent will cover 17 years (7 of approval process nad 10 yr period of exclusivity beginning in yr 7) 1 Assumptions: All Cash flows are expressed as after tax present values discounted to time zero, including capital expenditures At any point "failure," investment decision is to stop funding Assuming Standard deviation of 0. 5 Using T= 7 years in Black-Scholes Valuation 2 Decision Tree See worksheet "Decision Tree" 3 Detailed description of Real Option Technique First, using a decision tree, I came up with a simple expected value of \$13, 980, 000.

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