1056-91-1983 **Jin-Chuan Duan**, NUS Risk Management Institute, 21 Heng Mui Keng Terrace, Level 4, Singapore, 119613, Singapore, **Anirban Dutta*** (anirban.dutta@wmich.edu), Department of Mathematics, Western Michigan University, 1903 W. Michigan Avenue, Kalamazoo, MI 49008-5248, and **Qiji J. Zhu**, Department of Mathematics, Western Michigan University, 1903 W. Michigan Avenue, Kalamazoo, MI 49008-5248. *Option pricing for biomedical firms with predictable price jumps.* Preliminary report.

We focus on biomedical firms with small market capitalization. Usually these companies have one or two products in the pipeline. The survival or demise of these companies depend on the success of these products. FDA decisions on these drugs or technologies are crucial in these matters. Several months before FDA decisions are announced the news of the pending decisions come out. It is imperative that stock price will jump after the decision or the trial results comes out. Premium for options maturing after the pending decision jumps at this time. A smaller price jump is observed at this point.

We modeled the price as a combination of jump and mixture diffusion processes. After the news of a pending decision is out, we modeled the price process as a mixture of a pessimistic and an optimistic process. After the actual decision the price process is modeled to choose one of the mixture components. We compute pricing formulas for such processes and show that there is a theoretical jump in option prices after the news comes out. We also show evidence in the market data for such mixture processes and how the processes drift away from each other over time. (Received September 22, 2009)