The Economic Advantage of Single-Source Drug Development and Manufacturing

Tufts Center for the Study of Drug Development (CSDD) recently completed research, titled "Assessing the Economics of Single-Source vs. Multi-Vendor Manufacturing" that compared cycle times and development economics between multi- and single-source CDMO models. While there are many studies that debate the total cost of drug development,[1-3] the Tufts study sought a better understanding of which model offered the most accelerated time-to-market for its clients. By focusing on time as a primary value driver, a sponsor can lower the overall cost of bringing its drug to market, and more importantly, achieve the speed-to-market patients both want and need.

5 Patheon OneSource™ client timelines

submitted to Tufts CSDD, including two small molecule projects and three monoclonal antibodies

10 alternate models

created to simulate the same projects with separate drug substance

15 total timeline models

which included Patheon pricing data

3 key value drivers analyzed

time, cost, and revenue

14 weeks
saved, on average

With a faster manufacturing, single-source CDMO contracting can provide substantial financial gains to drug sponsors when applied to a portfolio of investigational drugs

$21 million
saved, on average

Reductions in the length of the contracted manufacturing processes translate to initiation of a clinical phase sooner than it otherwise would by the reduction in the amount of time needed to manufacture supplies for clinical testing. The lengths of the clinical testing phases once initiated remained the same.

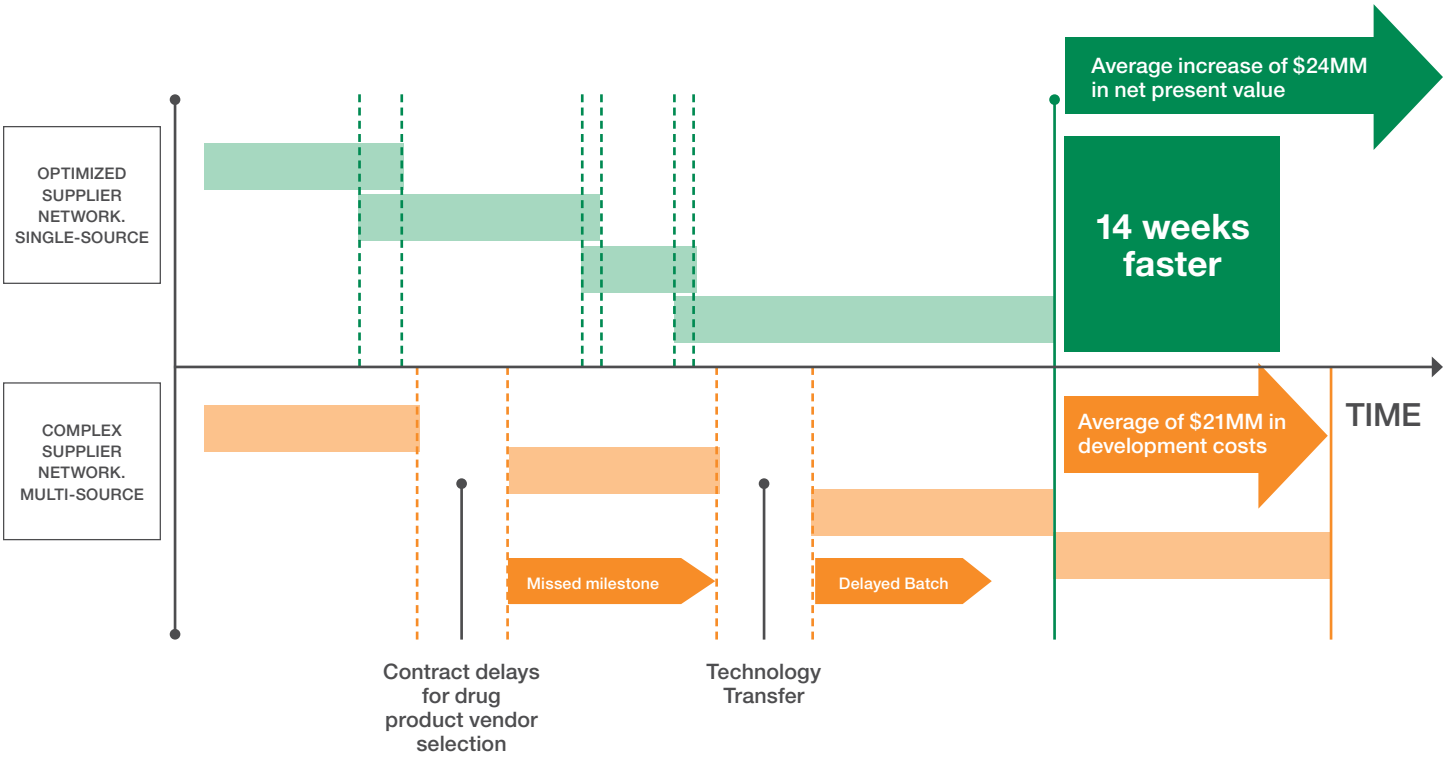
$24 million
earned, on average

Net cash flows after approval remain the same, but they begin earlier according to the reductions in development phase lengths resulting from a different sourcing model.

Total net gain of approximately $45 million

Post-tax net gains, on average, realized when using a single vendor to provide drug substance and drug product services.

With a faster drug development timeline, single-source CDMO contracting can provide substantial financial gains to drug sponsors when applied to a portfolio of investigational drugs. On average, gains from reduced preapproval development costs and increased net revenues after tax were estimated to be approximately $21 million and $24 million, respectively, for a total gain of approximately $45 million. The management fees of a single-source solution were 1 to 4 percent higher than those of a multi-source solution. However, these fees are small in comparison to development cost reductions and revenue gains from faster times to market and may be offset by lower sponsor management and legal costs. Any gains from single-source contracting depend positively on the extent to which the development process can be shortened for later clinical testing phases.



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