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Valuation Series

How to Interpret and Negotiate Deal Terms for a Life Science Licensing Agreement

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How to Interpret and Negotiate Deal Terms for a Life Science Licensing Agreement

This is the first in a series of white papers by the experts at PharmaVentures that explores the challenges of valuing drug candidates at various stages of clinical development. This series is based on the experiences we have encountered using valuation in actual negotiations with the various pitfalls that negotiators and valuation practitioners have while negotiating a deal.

Pitfalls in using comparable or benchmarking methodologies for determining deal terms and calculating eNPV.

One of the challenges that is often faced when undergoing an analysis of comparable licensing terms is to properly determine appropriate upfront, milestone payments and royalties. Simply taking face values of comparable deals found in deal databases without further analysis can be very misleading and dangerous. Let us illustrate with three simple examples:

Upfront Payment

If a comparator deal indicates that a licensor receives USD 50 million upfront, but then we find inside the agreement that it is committed to spend USD 30 million on the compound's upcoming clinical trial, is the upfront really only USD 20 million to the licensor? Furthermore, what contribution does the remaining USD 30 million make to the total eNPV of the deal and the subsequent proportion attributed to the licensor?

Milestone Payments

If a comparator deal gives a sales milestone that is unlikely to be ever achieved, should it be discounted to zero? For example, if the total market is worth USD 1 billion but in the agreement there is a commercial milestone for reaching USD 2 billion net sales, then this unlikely milestone may totally distort the overall dollar value (the sum of the upfront and all milestone payments) as well as the proportion of apparent value attributed to the licensor. A general rule of thumb is that overall dollar values quoted in databases and press releases are inaccurate and often misleading as they do not take into the high probability of failure that most drugs face as they go through clinical development.

Royalties

If a comparator deal has royalties of 5% written in the agreement but under a separate manufacturing and supply agreement has a transfer price of 35% of net sales, is the royalty rate effectively 30% if COGS is 10%? Furthermore, is this a suitable comparator agreement and if so, how should it be treated in your analysis?

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As you can see, data out there can be potentially misleading to the naive and in our experience even to veteran dealmakers! Having had the experience of analysing thousands of licensing contracts and negotiating scores of deals, one of the key learnings PharmaVentures can give is that careful analysis of what is written in each licensing agreement and its associated or affiliated agreements is critically important!

Comprehensive expected Net Present Value (eNPV) analysis may lead to effective knowledge-backed negotiation

In order to counter the potential confusion caused by multiple deal variables and allow for effective comparisons between deals, we have found it essential to perform an eNPV analysis where we can examine discounted cash flow from the asset, not just in terms of the eNPV, but also the split of the eNPV between the licensee and licensor which we discuss in separate white paper. eNPV analysis looks at the intrinsic value of an asset, based on its unique characteristics, target indications as well as capabilities of the partner which can be heavily influenced by the partner's expertise, strategic priority and availability of cash!

The challenge of course in performing an eNPV assessment is understanding the numerous variable assumptions that go into the analysis. Even in the simplest eNPV model for a product that has just completed Phase I clinical trials, there will be more than a dozen assumptions. These will include the risk of failure at Phase II, Phase III or registration, the overall market size, the market share, the selling price and the cost of goods, the cost of the Phase II and Phase III trials, the costs of sales and marketing, and the projected time for completion of each trial and of the registration process. Although many of these assumptions are well-aligned in the industry significant differences in each of these assumptions between negotiating parties can lead to real issues in agreeing the terms for a deal. Spreadsheet models used during negotiation permit the easy evaluation of different scenarios. Asking the other side for their key assumptions can help enormously towards resolving any differences and helps to understand how the licensee sees the opportunity and how it plans to develop and market it. For example, if the view on one side believes the product achieves 24% instead of 10% market share then a discussion can open up between the parties on the market and how to achieve higher market share.

Once the eNPV analysis has been performed, how do you derive deal terms? Our preference is to establish deal terms that commensurate with the opportunity in hand. Of course, benchmarking with relevant "vanilla" deals can guide "typical" deal structures but, in our experience, it is important to personalise deal terms to suit the risk appetite and financial cash flow requirements for each party. For example, three deals that deliver the same eNPV to the licensor are given below. The illustrative example below assumes a Phase 2 asset that is projected to achieve USD 1 billion peak sales.

It is worth noting Deal A would generate up to USD 690 million of payments to the licensor while Deals B and C would generate up to USD 1,270 million and USD 1,600 million respectively to the licensor. Despite Deal C having over twice the potential royalty revenue as compared with all of Deal A's payments, the total dollar deal value reported by adding up the upfront and milestones, would be zero! Obviously, biotech companies are very cash-hungry and for them, upfront and near-term cash is much more valuable than future royalty payments.

It should also be noted that Deal C is an example of an equalising methodology developed at PharmaVentures, which allows better comparative analysis of the value between deals. This approach converts all value bearing terms within a deal into to a single royalty percentage called the Effective Royalty Rate.

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Deal A		
Upfront		30
Phase III FPI		10
NDA Filing		20
NDA Approval		55
Sales	$250M	25
	$500M	50
	$1000M	100
Royalty		5%
eNPV to Licensor		60
Total		
Upfront		30
Development Milestones		85
Sales Milestones		175
Royalites		400
Total		**690**

Deal B		
Upfront		10
Phase III FPI		10
NDA Filing		10
NDA Approval		10
Sales	$250M	10
	$500M	10
	$1000M	10
Royalty		10%
eNPV to Licensor		60
Total		
Upfront		10
Development Milestones		30
Sales Milestones		30
Royalites		1200
Total		**1270**

Deal C		
Upfront		0
Phase III FPI		0
NDA Filing		0
NDA Approval		0
Sales	$250M	0
	$500M	0
	$1000M	0
Royalty		20%
eNPV to Licensor		60
Total		
Upfront		0
Development Milestones		0
Sales Milestones		0
Royalites		1600
Total		**1600**

Figure 1
Example deals

There are of course many additional considerations in deal making. Equity investments, sub-licensing participation rights, milestones associated with additional indications, governance structures, territorial considerations, co-promotions, FTE contributions, change of control clauses are some of these additional considerations and we will be elaborating more on these as well as the Effective Royalty Rate in the upcoming papers.

Deal making is an art and a science

Deal making, which is the lifeblood of the life science sector, is as much an art as it is a science i.e. it is as much about 'what you can live with' as it is about meeting specific industry norms. The simple upfront or bio-dollar value is a gross over-simplification in the analysis within the complex risk-hurdled environment of pharmaceutical development and in estimating potential financial return. Only by an in-depth analysis of a programme's value, and of the split of that value among deal components will you be able to answer that 'what can I live with' question and make informed decisions in agreeing to a deal.

Ultimately, effective knowledge-backed negotiation should be based on information, not on anecdote.

And of course, PharmaVentures is always here to help.

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PharmaVentures is a leading healthcare transaction advisory firm, offering a range of services that complement the life cycles of biopharmaceutical companies. Over the past 25 years, PharmaVentures has acted as an advisor on over 700 deal related projects. We are uniquely placed to support your business in all aspects of strategic planning and deal making.

BD&L	In- and out-licensing Valuation and precedent deal comparables Capital raising
Expert Services	Expert IPO/valuation industry reports Expert testimony in litigation Due diligence and transfer pricing
Strategy	Actionable strategy and decision support Significant therapeutic knowledge and expertise Deep data insights and targeted analytics
M&A	Sell side M&A advisory Site Divestments Asset and Company Buyside

From a strategic perspective understanding the challenges and opportunities across the evolving landscape, the potential positioning, and the value proposition, are critical to ensure that potential partners or investors can quickly see the true value of the opportunity and map how this fits with their own objectives.

PharmaVentures has considerable experience supporting discovery and development stage companies communicate their value propositions effectively to wide networks of different potential partners. We offer both complete BD&L packages and bespoke programmes that are carefully calibrated to the client’s needs and current capabilities.

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