

## Discovery & Preclinical License Deals: What's realistic?

We have performed an analysis of 22 recent early-stage license deals where Avance was involved in the structuring and/or valuation. The aim of the analysis was to find out what deal terms are realistic for preclinical and discovery deals, and to see if there is a clear pattern in the distribution of the milestone payments. Furthermore we wanted to see which parameters could be used as a guideline in finding the right deal terms when preparing an initial term sheet or when countering an offer.

The deals that were included in the analysis are across different disease areas, including NCE and biologicals. All of them are pure drug development deals. Diagnostics were not included.

The review of the 22 deals comprises a detailed analysis of all deal terms, including co-development, R&D funding, equity participation, or option payments, and a subsequent valuation of the deal at time of deal closing. For the valuation we have used ri:val®, a valuation solution specifically designed to value life science projects and licenses. The calculations are performed with a risk adjusted Net Present Value method, i.e. discounted cash flows using success rates. The input parameters were either provided by the companies themselves, or defined to our best knowledge. The sales were forecasted for each drug individually.

The average upfront payments for discovery deals were US\$ 0.9 Mio, with the minimum being US\$ 0 Mio, and the maximum being US\$ 5.5 Mio. For preclinical deals the average upfront payment was US\$ 1.9 Mio. The

lowest upfront for preclinical deals was US\$ 0.1 Mio, the highest US\$ 10 Mio.

The relative weights of the milestone payments are displayed in figure 1.

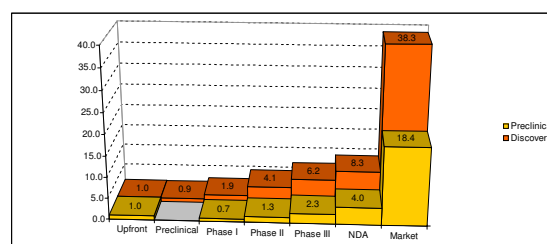


Figure 1: Relative weight of payments.

The figure shows a clear pattern for both discovery and preclinical deals. This pattern can be used when preparing a term sheet to define the milestone payments or when interpreting a news release where only the upfront payment and the total amount of milestone payments are revealed.

Royalties included in most of the contracts a tiered structure. On average the royalty rate was about 4% for discovery deals and 6% for preclinical deals.

As there is no clear consensus on how to define if a license deal is good or not, we have analysed the 22 deals in respect to different parameters that are used in the industry: Value share, return on investment (ROI) for the licensee, and absolute deal value.

The value share principle is based on the notion that the value of the project is split between the licensor and the licensee. The licensor's share grows bigger the later in the development the deal is closed. Figure 2 displays the value share for discovery and preclinical deals.

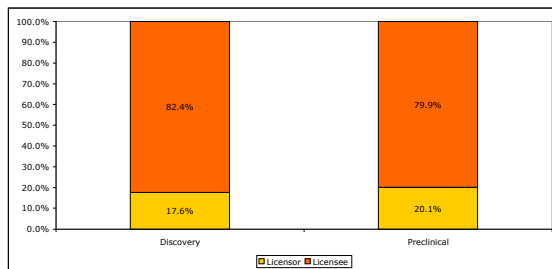


Figure 2: Value share at time of licensing.

The value share for discovery deals is 17.6% for the licensor, and 20.1% for preclinical deals. These results are consistent with data previously reported (by ReCap). For late stage deals, the share of the licensor is in the range of 40% - 60%.

A surprising finding was the consistency of the ROI in the range of 20% for most of the 22 deals analysed. The ROI was calculated only for the licensee, as the licensor in most cases has no further expenses and therefore no return on investment. The average ROI for discovery deals was 20.5% and 20.8% for preclinical deals.

The total deal value, i.e. the value of all future cash flows adjusted for their likelihood by their success rates and discounted back to the date of valuation, is for discovery deals US\$ 40.5 Mio, and US\$ 55.1 Mio for preclinical deals. All values are calculated using a uniform discount rate of 12%.

The above figures can be used as guidelines when preparing term sheets and negotiating license deals. Particularly useful are the figures on value share and return on investment. The disadvantage of this approach is that it requires a valuation, even a valuation of both parties, which in many cases is not possible due to a lack of time or skills. Nevertheless, the analysis of the 22 deals showed clearly that the best deals were closed by the

companies that had in-depth valuation skills at hand.

We strongly recommend to seriously prepare every potential license deal; it is a key value driver, especially for young companies.