

Cancer NCE Preclinical USD 660 Mio

General

Project:	PLX 4032	Licensor:	Licensee:
Year of Licensing:	2006	 Plexxikon	 Roche
Licensing Phase:	Preclinical		
Current Phase:	Phase 1 and 3	Plexxikon Inc	F. Hoffmann La-Roche AG
Upfront:	USD 40 Mio	www.plexxikon.com	www.roche.com
Total Milestones:	USD 660 Mio	91 Bolivar Drive	Grenzacherstr. 124
Royalties:	Yes	Berkeley, CA, USA	4070 Basel, Switzerland

Scientific Details

Disease Area:	Cancer	Indication 1:	Melanoma
Type:	NCE	Indication 2:	Colorectal
Class:	Small molecule	Indication 3:	Thyroid tumors
Mechanism of Action:	B-Raf inhibitor		

Deal Type

	Worldwide	North America	Europe	Japan	Rest of world
Straight License	•				
Profit Share					
Co-Development					
Co-Marketing					
Co-Promotion		•			

Reported Deal Terms (in USD Mio)

Upfront	Equity	R&D Funding	Preclinical	Phase 1	Phase 2	Phase 3	Filing	Approval	Sales Milestones	Total Milestones	Profit Share	Royalties
40		6								660		Yes

Deal Summary

Under the terms of the agreement, Roche will pay Plexxikon \$40 million as an upfront payment and a further \$6 million in guaranteed research funding over the next two years. In addition, Plexxikon could potentially receive up to approximately \$660 million over the term of the collaboration based on the successful completion of a series of development and commercial milestones for multiple indications and/or multiple compounds, as well as royalties on potential product sales.

Also under the collaboration, Roche and Plexxikon will jointly develop PLX4032 and follow on compounds targeting other BRAF resistance mutations. Plexxikon has filed an IND application for PLX4032, and will conduct a phase 1 dose escalation study in patients with cancer, including melanomas. Roche will have a worldwide, exclusive license to develop and commercialize PLX4032, in addition to other anticancer compounds resulting from the partnership. Plexxikon retains the right to co-promote any product in the collaboration in the United States.

Sources

Press Release http://www.roche.com/investors/ir_update/inv-update-2006-10-05.htm

Deal Metrics (in USD Mio)

	Upfront	Preclinical	Phase 1	Phase 2	Phase 3	Filing	Approval	Sales Milestones	Total Milestones	Royalties	Total Value (at 12%)	Value Share Licensor	IRR Licensee	Royalties/Deal Value
Peak Sales														
3 x 500	40	-	10	20	30	80	160/80/80	200	660	3%	255	36%	19,1%	12%
3 x 1,000	40	-	10	20	30	80	160/80/80	200	660	4%	548	20%	24,7%	27%
3 x 2,000	40	-	10	20	30	80	160/80/80	200	660	9%	1070	20%	29,1%	58%

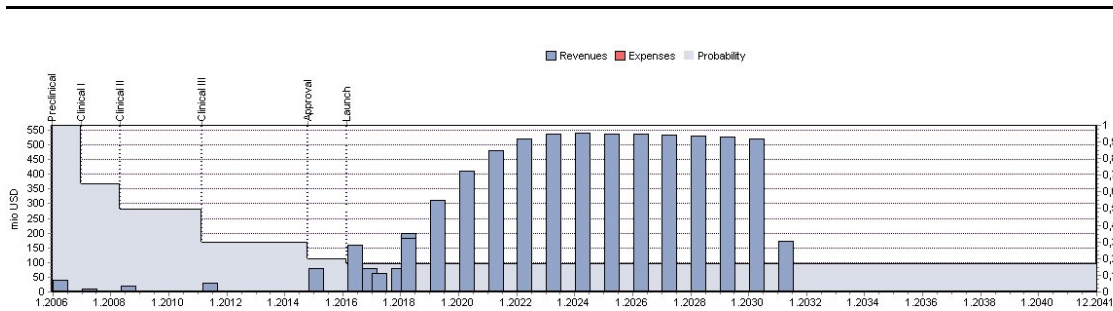


Figure 1: Cash flow Plexikon Inc. with 3 x USD 2,000 Mio sales.



Figure 2: Composition Royalties/Milestone payments with 3 x USD 2,000 Mio sales.

Interpretation

The given milestones of this deal reference on “multiple indications and/or multiple compounds” as indicated in the news of Roche. Looking at the upfront and development milestone payments it’s clear that such high numbers at a preclinical stage can only correlate with high sales expectations as well as a number of indications coming to the market. Therefore we assumed the 3 indication areas to be projects with high peak sales expectations. Sales scenarios between USD 1,000 Mio and USD 2,000 Mio per project with a value share of 20% and a royalty and milestone composition around 50% are most reasonable. The value share could be even higher due to possible higher royalties we would expect from a deal like this. However, it is also possible that the milestones are a bit smaller as maybe more indications are included in the USD 660 Mio number. It is unlikely to impossible that melanoma will reach peak sales of USD 2,000 Mio, but colorectal cancer on the other hand might well reach higher sales. Therefore we expect the truth to lie somewhere between the USD 1,000 and the USD 2,000 scenarios. Melanoma is – as often – rather a scout indication than a commercially viable option. Royalties have not been mentioned as double digit, therefore our forecast seems reasonable.