

The sector's most valuable unpartnered assets - up for grabs or on the shelf?



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Pharma companies have passed on in-licensing drugs such as Kite Pharma's CAR-T therapy and Incyte's IDO inhibitor. Do they know something?

Overlooked potential or left on the shelf? This is the question to ask when perusing the sector's most valuable unpartnered R&D assets - according to sellside analysts - and the list below seems to contain projects that fit in both categories.

Topping the table are Kite Pharma's CAR-T therapy and Incyte's IDO inhibitor, while DBV's peanut allergy vaccine and Karyopharm's cancer treatment selinexor also rank in the top 15, according to *EvaluatePharma*. While it is hard to argue against the potential of these first two cases, opinions elsewhere are likely to be much more divided.

Equity analysts are not typically known for their prudence when valuing the R&D work of small drug developers. Thus the actual figures being pinned to these projects are arguably less important than the fact that they rank among the most highly valued - and presumably among the closely watched - by the sellside.

EvaluatePharma's NPV is derived from a consensus of sales forecasts. The assets below remain wholly owned in major European and US markets.

On the shelf for a reason? The sellside's most valuable unpartnered R&D assets

Product	Company	Today's NPV (\$bn)	NPV as % of mkt cap	Drug type/lead indication	Status
Axicabtagene ciloleucel	Kite Pharma	7.81	111%	Anti-CD19 CAR T therapy; NHL	Filed
Epacadostat	Incyte	5.98	23%	IDO 1 inhibitor; melanoma	Phase III
AndexXa	Portola Pharmaceuticals	2.88	91%	Factor Xa inhibitor antidote	Filed
Viaskin Peanut	DBV Technologies	2.86	152%	Peanut allergy vaccine	Phase III
Intepirdine	Axovant Sciences	2.64	97%	5-HT6 antagonist; Alzheimer's	Phase III
AVXS-101	Avexis	2.48	84%	SMA gene therapy	Phase I
MPC-150-IM	Mesoblast	2.44	422%	Mesenchymal cell therapy; heart failure	Phase III
LentiGlobin	Bluebird Bio	2.28	52%	Thalassaemia/sickle cell gene therapy	Phase III
SAGE-547	Sage Therapeutics	2.08	66%	GABA A modulator; depression, epilepsy	Phase III
Selinexor	Karyopharm Therapeutics	2.07	494%	XPO/CRM 1 inhibitor; multiple myeloma, DLBCL	Phase III
NEOD001	Prothena	1.98	89%	Abeta MAb; amyloidosis	Phase III
LN-144	Iovance Biotherapeutics	1.76	557%	Tumour infiltrating lymphocyte infusion; melanoma	Phase II
AR101	Aimmune Therapeutics	1.73	173%	Peanut allergy vaccine	Phase III
Tipifarnib	Kura Oncology	1.65	937%	Farnesyl transferase inhibitor; SCCN	Phase II
Larotrectinib	Loxo Oncology	1.61	73%	TRK inhibitor; solid tumors with NTRK-fusion proteins	Phase II

Source: EvaluatePharma.

Kite and Incyte's efforts are certainly among the most validated in this analysis. Axicabtagene ciloleucel is likely to receive approval in the coming weeks, while Incyte has extensive research collaborations in place with Merck & Co and Bristol-Myers Squibb over epacadostat.

While both of these assets are technically unpartnered, it seems unlikely that either company is actively seeking such a deal; at the right price, however, others would certainly be tempted by what they are offering. Indeed being in the market for a partner or buyer was not a prerequisite for this analysis, and a number of companies have said that they want to take these projects to market themselves, at least in the US.

However, for those developing assets that will be sold into large or highly competitive markets, a larger pair of hands is surely crucial if they are to succeed commercially. Examples include Axovant's Alzheimer's project intepirdine, Karyopharm's selinexor, which is being tested in multiple myeloma and various lymphomas, or Iovance's melanoma project LN-144. Notably, the NPVs of the last two assets are way higher than the market caps of their respective owners, suggesting that investors do not share the sellside's optimism.

This disparity is also particularly evident with the US oncology group Kura and Australian biotech Mesoblast. Both have struggled to generate convincing clinical evidence for their lead candidates: the FDA refused to approve tipifarnib back in 2005 when it was owned by J&J, while Mesoblast has a failed partnership under its belt for its cell therapy ([The Mesoblast dream is over](#), 14 June 2016).

Elsewhere, Avexis stands out, considering that its gene therapy asset has not yet progressed beyond phase I - encouraging early data notwithstanding ([Biogen's Spinraza dazzles but rivals rally](#), 26 April 2017).

Proof of concept

For many of these assets, potential partners would want to see much more convincing data, and possibly proof of regulatory or commercial potential, before considering taking them on.

Gene therapies are one example, as are neurology candidates like Sage's SAGE-547, which sits in a field very prone to late-stage failure. It is also hard to predict great things for those that have appeared in previous years' rankings – *EP Vantage* conducts this analysis every 12 months or so. Prothena's amyloidosis project has ranked since 2014, for example, big pharma presumably overlooking its billion-dollar value for several years now.

This is not to say that this will not live up to hopes. Puma's Nerlynx featured in this article for many years, as did Acadia's Nuplazid, and these products have both reached the market and are forecast to generate strong sales. And, in 2011, an antiviral that went on to become Sovaldi, being developed by a small US biotech called Pharmasset, was identified as one to watch.

But previous years have also seen flops like Afrezza, Newlink Genetics' cancer vaccine algenpantucel-L and Biosante's Libigel. While the absence of a big partner is not necessarily a damning indictment, it would be wise to ask serious questions about these assets' clinical and commercial promise.

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