Evaluate Vantage

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Astrazeneca asset swap kickstarts Innate's independence

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Innate swaps its lead candidate for Astra’s Lumoxiti in a bid to become a rare cancer player.

After the collapse of its lead project lirilumab last year, Innate Pharma has got a fresh start with today’s expanded deal with Astrazeneca covering its new top prospect, monalizumab. Investors sent the French group’s stock up as much as 37%, the endorsement from Astra presumably cancelling out any concerns that Innate might have sold itself short.

Astra is paying $100m up front to get full oncology rights to monalizumab, pocket change for the UK giant. The project’s future likely lies in combinations and in large indications, so perhaps Innate is taking a sensible step by letting a big pharma partner do the work.

Indeed, the French company’s chief executive, Mondher Mahjoubi, said during a conference call that the deal played to the respective companies' strengths. Innate plans to focus on rare cancers and, to this end, has licensed US rights to Astra’s recently approved hairy cell leukaemia therapy, Lumoxiti.

As part of the multi-faceted deal, Astra has also taken a punt on several of Innate’s preclinical cancer candidates, as well as buying a 9.8% equity stake in Innate for €63m ($72m).

Astra's Innate expansion: the details				
Project	**Upfront payment**	**Mechanism**	**Status**	**Trial(s)**
From Innate to Astra…				
Monalizumab	$100m	CD94/NKG2A MAb	Phase I/II	Plus Erbitux in head & neck cancer, NCT02643550; Plus Imbruvica in CLL, NCT02557516; Plus Imfinzi in colorectal cancer, NCT02671435; Monotherapy in gynecologic cancers, NCT02459301
IPH5201	$50m	Anti-CD39 antibody	Preclinical	-
Four preclinical molecules	$20m	Not diclosed	Preclinical	-
From Astra to Innate…				
Lumoxiti	$50m	Anti-CD22 MAb-PE38 conjugate	Approved	NCT01829711
Source: Company presentation, Clinicaltrials.gov.				

Astra and Innate have been co-developing monalizumab since 2015. That deal specified that Astra was responsible for trials of the project in combination with the UK company's PD-L1 inhibitor Imfinzi, while Innate would take on studies of monalizumab alone or in combination with other agents.

Today's agreement gives Astra "full rights to monalizumab in oncology, period," Mr Mahjoubi said, "not just the combination with Imfinzi but all sorts of combinations".

He pointed to an ongoing trial of monalizumab alongside Lilly's EGFR inhibitor Erbitux in head and neck cancer, and this yielded data described by Leerink analysts as "early but encouraging" at Esmo over the weekend.

Results from the 40 evaluable patients in the open-label study showed an overall response rate of 27.5%, median progression-free survival of 5 months and median overall survival of 10.3 months.

Monalizumab is an antibody targeting NKG2A receptors, designed to allow the dual activation of natural killer and cytotoxic T cells, and Innate says it is the only checkpoint inhibitor capable of acting simultaneously on both cell types, something that could provide a more effective immune response.

The project became Innate's main focus after the failure of the Bristol-Myers Squibb-partnered Kir inhibitor lirilumab last year (*The market writes off lirilumab, 23 November 2017*).

Rare disease refocus

While Astra is doubling down on monalizumab, Innate is picking up Lumoxiti, which got the US FDA nod in September for third or fourth-line treatment of hairy cell leukaemia. A filing in Europe is set for the second half of next year.

Innate hopes to expand Lumoxiti into earlier lines of therapy, and might also investigate the drug in other indications such as follicular lymphoma or high-grade B-cell diseases, Mr Mahjoubi said.

Astra will begin the US launch next week, with Innate beginning co-commercialisation in mid-2019 and gradually taking over responsibility for the drug. Still, Astra could provide support until 2020, the chief exec noted.

He reckons that a sales force of just 20-25 reps will be big enough for Lumoxiti. Around 1,000 patients in the US are diagnosed with hairy cell leukaemia in the US each year, around a third of whom are currently eligible for treatment with Lumoxiti.

The French company hopes to use the same team to sell IPH4102, now its most advanced wholly owned asset.

The Kir3DL2 inhibitor is in a phase I trial in cutaneous T-cell lymphomas, another rare cancer, and should move into pivotal trials next year, Mr Mahjoubi said.

Although IPH4102, like lirilumab, hits a receptor in the Kir family, he pointed out that the former is mechanistically distinct. Innate no doubt hopes that IPH4102 will not get caught up in the same problems that hit lirilumab.