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Astra moves to emulate Kadcyla, courtesy of Spirogen

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Bubble or no bubble, AstraZeneca continues to get its hands on cutting-edge technologies and shows no sign of slacking off in paying significant amounts of cash for the right assets.

Today's $200m acquisition of Spirogen must send another positive message to any deal bankers worried about the biotech bubble pushing asset prices beyond affordability. Even in Europe there are still deals to be done, though yet again some of the hottest technologies are seemingly the domain of closely held start-ups.

Drastic measures

At least Astra's investors can take heart in the UK group's realisation that drastic measures are needed to turn its fortunes around, even if it has eschewed large M&A. Astra's so-called string of pearls strategy already includes deals with the cancer immunology company Amplimmune and mRNA specialist Moderna Therapeutics.

Given the group's willingness to buy in whatever is at the cutting edge it is hardly surprising that Spirogen caught its attention. The start-up's focus is on oncology and the development of antibody-drug conjugates (ADCs) – an area whose potential is marked by Roche's Kadcyla, which was approved this year and carries 2018 revenue forecasts of $3bn.

Spirogen is an ADC technology platform company that was 75%-owned by the private equity group Auven Therapeutics. Last year Auven – then known as Celtic Therapeutics – put $50m into a new company, ADC Therapeutics, that would focus on 10 specific projects derived from Spirogen's technology (*Celtic invests $50m in antibody-drug conjugate start-up, March 26, 2012*).

For $200m Astra gets Spirogen's technology and staff, but the complex deal excludes a number of projects under development by partners including Roche, Seattle Genetics, Genmab and ADC Therapeutics itself. These technology-access agreements – along with milestones and royalties from partners – have been hived off into another 75%-Auven-owned "mirror company".

Spirogen's lead project, BN2629/SG2000, in phase II for ovarian cancer and acute myeloid leukaemia, also sits outside the deal, Astra says. However, the UK company has licensed in two of ADC's 10 early-stage compounds, but has not disclosed which; *EvaluatePharma* lists several ADC-owned antibody-pyrrolobenzodiazepine conjugates in general cancer indications, as well as anti-prostate specific membrane antigen and anti-CD25 MAbs.

Equity stake

This part of the deal involves a $20m equity stake in ADC as well as an undisclosed up-front and milestones for the compounds themselves. Since Auven is matching this with an additional $20m of its own, Astra's interest in ADC will stand at around 20%.

It might seem surprising that Astra did not buy ADC outright, but the group told *EP Vantage* that it deliberately wanted to focus on preclinical applications of the technology – effectively going back to the drawing board to design new conjugates. It will pay Spirogen's private owners a further $220m based on future milestones, presumably involving the progress of compounds through development.

Spirogen's know-how centres on the design of pyrrolobenzodiazepine cytotoxic agents and a linker technology. The cytotoxicity of pyrrolobenzodiazepines comes from their binding to DNA to block cancer cell division without distorting the DNA helix, potentially avoiding drug resistance, and a stable linker is the basis of any ADC.

Analysts at Bryan Garnier said a good ADC technology was a must-have for an oncology company that wants to play a role in this field. Nevertheless, Astra will be playing catch-up in a field that already includes Pfizer, GlaxoSmithKline and Sanofi, and boasts a deep clinical pipeline of competing agents.

However, with the deal Astra gives itself another shot at what investors must hope will be its eventual recovery.

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