

Deal Watch



A review of notable deals from Medius Associates

By Jill Ogden

In this regular review of deals we focus on transactions announced during the month of August. As part of this series of articles we typically concentrate on deals where financial terms are disclosed, however here we have also included a number of deals for which financials were not published to illustrate certain trends.

This month saw a mix of licensing and drug discovery/ development transactions in diverse areas including oncology, anaemia, Type 2 diabetes and respiratory, as well as some M&A activity. There were several early stage drug discovery alliances announced with four of the five focusing on antibody-based discovery platforms. This continues the trend observed previously as pharma companies look externally for means to populate their early stage pipelines with novel molecules.

The one discovery deal outside the antibody area saw **Servier** signing a US\$163 million alliance with **Intercept Pharmaceuticals** for the discovery and

development of novel agonists of TGR5 (a cell-surface receptor that is regulated by bile acids) for the treatment of Type 2 diabetes and other metabolic indications.



This deal provides Servier access to Intercept's proprietary bile acid analogue chemistry platform and expertise in targeting TGR5 and other bile receptors. Perhaps unusually for an early stage discovery alliance, Servier's rights exclude the US and Japan, which are retained by Intercept. Although Intercept and Servier will jointly support the discovery phase, Servier alone will be responsible for all costs associated with global development, regulatory approval and commercialisation of any compound selected

Antibodies remain in vogue

Canadian biotech **Zymeworks** has signed a global licence providing **Merck & Co** with access to its Azymetric™ platform for the discovery, development and commercialisation of bi-specific antibodies against exclusive therapeutic targets. These "heterodimeric" antibodies allow binding to two different antigens or drug targets. As part of the deal Merck will pay an undisclosed upfront fee and Zymeworks could earn research, development and regulatory milestones with a potential value of up to US\$187 million, as well as tiered royalty payments on sales of products.



Adimab has had a successful month signing two research collaborations based on its yeast-based antibody discovery platform: one with **Biogen Idec** and the other with **Novo Nordisk**. Both deals appear to have a standard format focusing on identification of fully human antibodies against two targets, with the pharma companies having an option to commercialise antibodies generated from the collaboration. In return, Adimab will receive upfront payments, preclinical and clinical development milestones and royalties on product sales. No financial terms were disclosed.

Early Stage Product Deals Anaemia and Oncology

Moving along the development pathway are the deals between **Accelaron Pharma** and **Celgene Corporation** and **Array BioPharma** and **Genentech** for preclinical and Phase 1 assets.

Interestingly these deals have very similar upfront payments of US\$25 million and US\$28 million, respectively, but the headline values are about 3-fold apart. Both deals have come out of existing long term relationships between the parties. Whilst Genentech and Array have worked together since 2004 to advance certain oncology programmes, Accelaron and Celgene began a collaboration in 2008 on a fusion protein, sotatercept, for the treatment of anaemia.

As part of the new deal, Celgene and Accelaron will jointly develop and commercialize ACE-536, a novel fusion protein that inhibits members of the TGF-beta superfamily involved in erythropoiesis for the treatment of anaemia.

ACE-536 and sotatercept are biochemically distinct molecules and the companies will collaborate on both products. If successful, these products could compete with erythropoietin in the multibillion market for the treatment of anaemia.

A further aspect of the new transaction gives Celgene an option to future Accelaron programmes developed for anaemia. In terms of development costs, Accelaron will pay a share of expenses to the end of 2012 after which Celgene will be responsible for all costs. In return for rights to ACE-536, Celeron will pay up to US\$217 million in milestones in addition to tiered double digit royalties.

As has been seen in several other transactions involving biotechs, Accelaron has rights to co-promote the products evolving from this deal in North America, providing the rationale for building a sales infrastructure and a means of retaining downstream value. [A few weeks after announcing this deal, Accelaron initiated a Phase 1 study for ACE-536, which triggered a US\$7.5 million milestone payment from Celgene.]



Licensors Acquired / Licensee Acquiror	Product / Technology	Deal Type	Head-line (\$m)
Array BioPharma / Genentech	Checkpoint kinase 1 (ChK-1) programme	Discovery - oncology	685
AB Sanitas / Valeant Pharma	Generics company	Acquisition	441
Anchem Pharma / Par Pharmaceuticals	Generics company	Acquisition	410
Aptuit / Catalent Pharma	Aptuit's clinical trial supply business	Acquisition	410
Baxa Corporation / Baxter	Baxa has oral and iv drug preparation/ delivery technology	Acquisition	380
Accleron Pharma / Celgene Corporation	ACE-536 for anaemia preclinical	Licence and development	242
Zymeworks / Merck	Azymetric™ platform for bi-specific antibodies	Licence, discovery	187
* Intercept Pharma / Servier	TGR5 agonists for diabetes and metabolic	Discovery	163
Afexa Sciences / Valeant		Acquisition	76
**Vectura / Undisclosed	VR315 combination therapy for asthma, COPD	Licence	45
Mallinckrodt / Hi-Tech Pharmacal	TussiCaps® extended-release capsule	Acquisition of marketing/ distribution rights	24
Labopharm / Paladin Labs		Acquisition	20
***Gedeon Richter / STADA	Rituximab - biosimilar	Non-exclusive licence/ distribution	Low double digit
‡Vectura / Sandoz	VR315 combination therapy for asthma, COPD	Licence	11
Adimab / Biogen Idec Adimab / Novo Nordisk	Discovery platform fully human MAb	Discovery	
4-Antibody AG / HGS	Retrocyte Display® platform for fully human MAb	Discovery	
‡‡Orion / Nycomed	Easyhaler® combination products	Co-marketing	

All deals are worldwide unless otherwise noted – see below :

* Excluding US and JP

** US

*** Europe and the CIS area but excluding Russia

‡ RoW (excluding US, EU)

‡‡ EU - Austria, Benelux countries, France, Germany, Greece, Italy, Poland, Portugal, Spain, Switzerland

The deal between Array BioPharma and Genentech focuses on small molecule therapeutics that inhibit Checkpoint kinase 1 (ChK-1), a protein kinase that regulates the response of tumour cells to DNA damage. Inhibition of ChK-1 in combination with chemotherapy can enhance the efficacy of some chemotherapeutic agents by preventing tumour cells from recovering from DNA damage.

Both parties have ChK-1 programmes, which are the focus of this transaction, presumably as a means of pooling resources: Array has a compound ARRY575 approaching a Phase 1 study in cancer and Genentech has a Phase 1 stage molecule, GDC-0425, for solid tumours or lymphoma, which came out of the original collaboration with Array. In addition to the US\$28 million upfront payment, Array could receive clinical and commercial milestone payments up to US\$685 million and potentially double-digit royalties on sales of any resulting drugs.

Respiratory Focus

Having not seen much activity in the respiratory area for a while, three deals for asthma and COPD products were announced in August. **Vectura** announced two of these deals for its VR315, a generic combination therapy for asthma and COPD delivered using its GyroHaler® Dry Powder Inhaler device.

In addition to their existing partnership in Europe signed in 2006, Vectura has now granted **Sandoz** exclusive rights to VR315 for RoW excluding the US. In return for the rights granted, Vectura is eligible to receive milestones and advance pre-launch royalties of up to

EUR8 million, together with royalties on net sales and a margin on the commercial manufacture and supply of the dry powder inhaler device.

Vectura's other deal this month focused on the US rights to VR315, which Sandoz had returned in 2010. The new partner, the name of which has not been disclosed, is paying an upfront of US\$10 million with up to US\$35 million in milestones as well as royalties on sales.



The third respiratory deal of the month is a co-marketing arrangement between **Nycomed** and **Orion** for the latter's Easyhaler® combination products for asthma and COPD in European territories with Orion retaining exclusive marketing rights for the Nordic countries, UK and Eastern Europe. Combining marketing resource in this way is a useful approach to maximising a company's share of such a competitive market. The companies will commercialise combination products under their own brands but using the Easyhaler® umbrella brand.

Included in the agreement are budesonide-formoterol and fluticasone-salmeterol combinations being developed by Orion. The combination products under the agreement will be manufactured exclusively by Orion. No financials have been disclosed.



Consolidation with a Generics Theme

Following its failed US\$5.7 billion attempt to acquire Cephalon a few months ago, **Valeant** has closed its US\$441 million acquisition of Lithuanian company **AB Sanitas**, providing access to around 390 generic products in Poland, Russia, Lithuania, and six other countries in Central and Eastern Europe.

Still on the acquisition trail, Valeant recently made an offer to buy **Afexa**, which was in the process of rebutting a hostile takeover by **Paladin Labs**. Valeant has offered around US\$76 million for Afexa, a significant premium over Paladin's US\$57 million bid. In the meantime, Paladin has entered into an agreement to acquire **Labopharm**.

In further generics consolidation, **Par Pharmaceutical** has entered into a definitive agreement to acquire US-based **Anchen Pharmaceuticals** for US\$410 million in cash.

Anchen is a specialty pharmaceutical company focused on developing and commercializing extended release and niche generic products using its formulation technologies.



Although few financial terms were disclosed, it is interesting to note that **Gedeon Richter** and **STADA** have entered into two separate licence and collaboration agreements for the development and marketing of two biosimilar monoclonal antibody products, Rituximab and Trastuzumab.

Both companies see biosimilars as being an important strategic area in which to exploit their generics experience and capabilities. With **Hospira's** CEO commenting recently that the company will also look at biosimilars as a means of future growth, this area is fast becoming very competitive.



Author Bio

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Jill Ogden has 24 years' commercial and R&D experience in the biopharmaceuticals and healthcare industries and provides our biologics and drug delivery expertise. She has led and been involved in a wide range of product and technology deals.

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