

## J&J signals rekindled interest in early-stage respiratory research



[Amy Brown](#)

Johnson & Johnson announced two respiratory deals yesterday, an unusual buzz of activity in a therapy area which has not traditionally held much interest for the pharma giant. As the analysis below reveals, sales of respiratory products only accounted for 2.2% of J&J's prescription and over-the-counter sales last year, a figure that is seen declining.

If fact, in the last decade the company had only licensed or acquired six respiratory products, before this week's news, a subdued level of activity in this therapy area that was reflected across the industry last year ([Resurgence of conventional and untrendy therapy area product deals in 2009, February 25, 2010](#)). Does this flurry mean a change of heart is taking place in the respiratory space?

### Deal flurry

The first deal announced yesterday was the acquisition of RespiVert, a private British company focused on developing small-molecule, inhaled therapies, by J&J's Centocor Ortho Biotech division; terms were not disclosed.

The press release described the company's lead compounds, RV-568 and RV-1088, as narrow spectrum kinase inhibitors with a unique profile of anti-inflammatory activities. Both appear to be pre-clinical but ready to go into man, as potential first-in-class treatments for moderate to severe asthma, chronic obstructive pulmonary disease (COPD) and cystic fibrosis. The companies believe the compounds could offer options to patients insensitive to inhaled corticosteroids.

The second deal was struck with a Swedish drug discovery company, Orexo, this time structured as a R&D alliance and license agreement with Ortho-McNeil-Janssen and Janssen Pharmaceutica. The J&J units bought worldwide rights to Orexo's ongoing OX-CLI and OX-ESI programmes, which again are searching for innovative small-molecule treatments for asthma, COPD and other inflammatory diseases. In turn, the larger partner will throw one of its own internal programmes into the mix.

The partnership will run for three years, bringing funding of \$21.5m for Orexo, including \$10m upfront, with further milestones of up to \$564m should all three reach the market.

### Better effects

Little information has been released on the latter of the Orexo programmes, although the aim of OX-CLI is to develop an oral, non-steroid-based, anti-inflammatory and bronchodilatory drug for the treatment of all stages of asthma and COPD. The Swedish company has previously said that the target protein in the project has a central role in the inflammatory process, and that studies in animals that lack the target protein have shown significantly reduced inflammatory responses in various disease models for asthma and COPD.

Orexo said last year that the mechanisms of action indicate that a better effect could be attained using this method than with current oral-based treatments using leukotriene inhibitors such as Spiriva.

As well as these two deals, at the end of May a small J&J collaborator, 7TM Pharma, announced that it had received a undisclosed milestone payment under a deal it signed with Ortho-McNeil-Janssen in 2005. The press release indicated a candidate, one of the few respiratory projects J&J has in the pipeline, has progressed into the clinic.

The private Danish company last received a milestone payment in 2008 when a pre-clinical candidate was selected.

The companies are working on novel oral compounds for asthma and allergy, derived from 7TM's platform, which target novel antagonists to a certain 7-transmembrane receptor.

### Stated strategy?

All of which points to the fact J&J is scouring the very experimental end of the respiratory space to build a pipeline, if indeed a stated strategy to do so is in place, as all three projects appear to belong to different members of the disparate J&J family.

These new projects are not destined for over-the-counter, where J&J's respiratory franchise currently sits. Those 2.2% of respiratory sales reported last year were mostly derived from the company's non-prescription allergy products, Zyrtec, Benadryl and Sudafed, all of which are now off patent but still generated \$519m last year.

Clearly, with a largely pre-clinical respiratory portfolio J&J is a long way from building a large franchise in this space, but the activity could certainly point to a resurgence in interest.

J&J therapy area sales as a % of total WW Rx & OTC Sales	Count in last 10 years			
	2009	2016	Products in-licensed	Products acquired
Blood	9.7%	8.5%	1	4
CNS	36.6%	25.0%	23	4
Cardio	0.2%	3.1%	1	3
Dermatology	1.3%	1.0%	3	1
Endocrine	-	0.1%	5	2
GI	5.7%	1.2%	0	0
GU	3.7%	2.3%	2	1
Musculoskeletal	14.0%	15.3%	8	4
Oncology & Immunomodulators	4.3%	8.8%	17	21
Respiratory	2.2%	1.3%	3*	3*
Sensory Organs	0.0%	0.0%	3	0
Anti-infectives	12.1%	25.2%	8	13
Other	10.2%	8.3%	0	3
Total (Rx & OTC sales in \$bn)	23.8	29.4	75	60
<i>*Excluding RespiVert and Orexo deals</i>				

Source: EvaluatePharma