



ASHG Preview

Focus on Orphan Drug Development and Predictive Medicine

The American Society of Human Genetics (ASHG) 60th Annual Meeting takes place in Washington, D.C. November 2-6, 2010.

Products

- Amicus Therapeutics' (FOLD) migalastat
- Genzyme's (GENZ) Cerezyme
- Protalix's (PLX) taliglucerase/velaglucerase alfa
- Genzyme's eliglustat
- Seaside Therapeutics' (privately held) arbaclofen
- Sanofi-aventis (SNY) and Bristol-Myers Squibb's (BMY) Plavix
- Vertex's (VRTX) VX-770
- Vertex's VX-809
- PTC Therapeutics (privately held) and Genzyme's ataluren
- BioMarin's (BMRN) PEG-PAL
- BioMarin's BMN-110

- Presentations at The American Society of Human Genetics (ASHG) 60th Annual Meeting in early November will be **drivers for orphan drugs from Amicus Therapeutics (FOLD) and Protalix (PLX).**
- **Amicus is developing a new drug for Fabry disease, while Protalix is working on a Gaucher therapy, both of which would compete against established drugs from Genzyme (GENZ).**
- We are also expecting a presentation on **Seaside Therapeutics' (privately held) arbaclofen for fragile X syndrome.**
- **Genotype status remains a clinically irrelevant marker for distinguishing optimal recipients of Plavix (Sanofi-aventis [SNY] and Bristol-Myers Squibb [BMY]) and its alternatives.**
- **More than 70 presentations will feature developmental predictive medicine tools designed to enhance clinical management over a broad array of clinical scenarios.**

The American Society of Human Genetics (ASHG) annual conference will be held November 2-6 in Washington, D.C.

Amicus's migalastat is an oral, small molecule pharmacological chaperone designed to restore wild-type alpha-galactosidase conformation in Fabry disease. Mutant, misfolded alpha-galactosidase protein is at the root of Fabry disease pathology. Migalastat is in phase III clinical trials. At ASHG, Amicus and Baylor researchers will present data on their progress with prospectively identifying eligible Fabry disease patients likely to derive net benefit from migalastat. Advanced migalastat kinetics and dynamics will also be presented. Heading into the conference, migalastat's *inThought* Approvability Index (IAI) score is 50%(C).

Head-to-head results favoring Uplyzo over Cerezyme will be heavily scrutinized.

Protalix's taliglucerase/ velaglucerase alfa (proposed brand name Uplyzo) is a plant cell-expressed recombinant glucosylceramidase developed as an enzyme replacement therapy for Gaucher disease. It is in regulatory review in the United States. If approved, it will compete with Genzyme's Cerezyme (imiglucerase). Maturing primary and switch data will be presented. Head-to-head results favoring Uplyzo over Cerezyme will be heavily scrutinized. Updated phase II data for

eliglustat, Genzyme's oral alternative to Cerezyme, will also be presented.

Seaside Therapeutics' arbaclofen will be in the spotlight given promising phase II efficacy data suggesting utility for both Fragile X syndrome's behavioral symptoms and core social symptoms of autism prevalent in the condition.

Pare, et al's *Efficacy and Safety of Clopidogrel compared with Placebo according to CYP2C19 Genotype in over 6000 patients with Non-ST-elevation Acute Coronary Syndromes (CURE trial) and atrial fibrillation (ACTIVE trial)* should put to rest notions that genotype status should play a role in recommending Plavix alternatives in non-invasively managed acute coronary syndrome and atrial

fibrillation.

More than 70 presentations will feature pharmacogenomic, pharmacogenetic, or biomarker data designed to aid in medical diagnosis, therapy, and prognosis across a broad array of both single-(orphan) and multi-gene (common) disorders. In addition to the programs described above that will have new data presented at ASHG, we expect significant discussion of the compounds in Table 1 that are currently being followed by *inThought*.

Table 1: Additional Orphan Drug Programs Followed by *inThought*

<i>inThought</i> Approvability Index Scores: Single Gene Disorders				
Therapeutic Area	Drug	Sponsor (s)	IAI score	Phase
Cystic Fibrosis	VX770	Vertex	37%(D)	III
	VX809		31%(C)	II
	ataluren	PTC Therapeutics, Genzyme	49%(C)	III
	compacted DNA	Copernicus Therapeutics	8%(D)	I/II
Phenylketonuria (PKU)	PEG-PAL	BioMarin	44%(B)	II
Duchenne Muscular Dystrophy (DMD)	ataluren	PTC Therapeutics, Genzyme	33%(C)	II/III
Morquio Syndrome	BMN110 (GALNS)	BioMarin	56%(A)	I/II

Source: *inThought* estimates, ADIS R&D Insight

Copyright © 2010 Wolters Kluwer Pharma Solutions All rights reserved

Wolters Kluwer *inThought* Research Reports provide unbiased analysis and ideas based on the needs and direction of clients. The material herein, while not guaranteed, is based upon information believed to be reliable and accurate. We do not: (a) give investment advice; or (b) advocate the sale or purchase of any security or investment. The material herein is not to be deemed an offer or solicitation on our part with respect to the sale or purchase of any securities. Any copying, redistribution or republication of the analyses provided by Wolters Kluwer Pharma Solutions, or the content thereof, for commercial gain is strictly prohibited.