

# Pompe Disease – Pipeline Insight, 2020

https://marketpublishers.com/r/P3EB8A0EB51EN.html Date: September 2020 Pages: 90 Price: US\$ 2,500.00 (Single User License) ID: P3EB8A0EB51EN

## **Abstracts**

This report can be delivered to the clients within 72 - 96 Hours

DelveInsight's, "Pompe Disease – Pipeline Insight, 2020," report provides comprehensive insights about 30+ companies and 30+ pipeline drugs in Pompe Disease pipeline landscape. It covers the pipeline drug profiles, including clinical and nonclinical stage products. It also covers the therapeutics assessment by product type, stage, route of administration, and molecule type. It further highlights the inactive pipeline products in this space.

**Geography Covered** 

Global coverage

Pompe Disease Understanding

Pompe Disease: Overview

Pompe disease is a rare disease continuum with variable rates of disease progression and different ages of onset. First symptoms can occur at any age from birth to late adulthood. Earlier onset compared to later onset is usually associated with faster progression and greater disease severity. At all ages, skeletal muscle weakness characterizes the disease causing mobility problems and affecting the respiratory system. The most severely affected infants usually present within the first 3 months after birth. They have characteristic heart (cardiac) problems (dysfunction due to heart enlargement) in addition to generalized skeletal muscle weakness and a life expectancy of less than 2 years, if untreated (classic infantile Pompe disease). Less severe forms of Pompe disease with onset during childhood, adolescence, or adulthood, rarely manifest



cardiac problems, but gradually lead to walking disability and reduced respiratory function. It is a rare, multisystemic, hereditary disease, which is caused by 'pathogenic variations' (abnormalities / mutations) in the 'GAA gene'.

#### Symptoms

Patients with the 'classic infantile' form of Pompe disease are the most severely affected. Although hardly any symptoms may be apparent at birth, the disease usually presents within the first three months of life with rapidly progressive muscle weakness ('floppy infants'), diminished muscle tone (hypotonia), respiratory deficiency, and a type of heart disease known as hypertrophic cardiomyopathy, a condition characterized by abnormal thickening of the walls of the heart (mainly the left chamber and the wall between the left and right chamber) resulting in diminished cardiac function. These problems together culminate in cardio-respiratory failure within the first 2 years of life.

Many infants have a large, protruding, tongue and a moderate enlargement of the liver. The legs often rest in a frog position and feel firm on palpation (pseudo-hypertrophy).

Feeding and swallowing problems as well as respiratory difficulties, which are often combined with respiratory tract infections, are common. Major developmental milestones such as rolling over, sitting up, and standing are delayed or not achieved. Mental development is usually normal. Virtually all infants experience hearing loss. The 'classic infantile' form of Pompe disease is caused by a total absence of acid alphaglucosidase (GAA) activity and by a rapid buildup of glycogen in skeletal muscle and heart.

#### Diagnosis

The diagnosis of Pompe disease is based on a thorough clinical evaluation, a detailed patient and family history, and a variety of biochemical tests with first of all the measuring of GAA activity. In individuals suspected of having Pompe disease, blood can be drawn and the function/activity of GAA (the 'enzymatic activity') can be measured in white blood cells (leukocytes), but only if the proper assay conditions are being used and acarbose is added to the reaction mixture to inhibit the activity of glucoamylase. Alternatively, the GAA activity/functional assay can also be performed on dried blood spots, but this method is not any quicker, less reliable, and also requires the use of acarbose to inhibit the glucoamylase activity. A variety of other tests can be performed to detect or assess symptoms potentially associated with Pompe disease such as sleep studies, tests that measure lung function, and tests that measure muscle



function. Muscle MRI (imaging by magnetic resonance) is used to visualize the degree of muscle damage.

### Treatment

Enzyme replacement therapy (ERT) is an approved treatment for all patients with Pompe disease. It involves the intravenous administration of recombinant human acid alpha-glucosidase (rhGAA). This treatment is called Lumizyme (marketed as Myozyme outside the United States), and was first approved by the U.S. Food and Drug Administration (FDA) in 2006. Currently in 2020, it is broadly agreed that ERT extends the life expectancy of patients with classic-infantile Pompe disease / IOPD with years (the longest treated patient is at present 24 years old). Additional treatment of Pompe disease is symptomatic and supportive. Respiratory support may be required, as most patients have some degree of respiratory compromise and/or respiratory failure. Physical therapy may be helpful to strengthen respiratory muscles. Some patients may need respiratory assistance through mechanical ventilation (i.e. Bipap or volume ventilators) during the night and/or periods of the day or during respiratory tract infections. Mechanical ventilation support can be through noninvasive or invasive techniques.

### Pompe Disease Emerging Drugs Chapters

This segment of the Pompe Disease report encloses its detailed analysis of various drugs in different stages of clinical development, including phase II, I, preclinical and Discovery. It also helps to understand clinical trial details, expressive pharmacological action, agreements and collaborations, and the latest news and press releases.

Pompe Disease Emerging Drugs

Cipaglucosidase alfa: Amicus Therapeutics

Amicus Therapeutics are leveraging our investigational biologics and Chaperone-Advanced Replacement Therapy (CHART) to develop AT-GAA, an investigational therapy that consists of recombinant human acid alpha-glucosidase (rhGAA) enzyme with an optimized carbohydrate structure (designated ATB200), administered with a small molecule pharmacological chaperone (designated AT2221).

SPK-3006: Spark Therapeutics



Spark Therapeutics is developing SPK-3006, an investigational gene therapy for the potential treatment of Pompe disease. Pompe disease is an oftentimes fatal lysosomal storage disorder and neuromuscular disease, with systemic, multi-organ manifestations resulting from loss of function mutations in the gene encoding acid alpha-glucosidase (GAA). The initial construct for SPK-3006 was in-licensed from Genethon in 2017, and Spark retains global commercialization rights. It is currently in phase I/II stage of development.

Recombinant Adeno-Associated Virus Acid Alpha-Glucosidase: Lacerta Therapeutics

Recombinant Adeno-Associated Virus Acid Alpha-Glucosidase is being developed by Lacerta Therapeutics, Inc. it is currently in phase I stage of development.

Further product details are provided in the report......

Pompe Disease: Therapeutic Assessment

This segment of the report provides insights about the different Pompe Disease drugs segregated based on following parameters that define the scope of the report, such as:

Major Players in Pompe Disease

There are approx. 30+ key companies which are developing the therapies for Pompe Disease. The companies which have their Pompe Disease drug candidates in the most advanced stage, i.e. phase III include Amicus Therapeutics and others

Phases

DelveInsight's report covers around 30+ products under different phases of clinical development like

Late-stage products (Phase II and Phase II/III)



Mid-stage products (Phase II and Phase II/III)

Early-stage products (Phase I/II and Phase I) along with the details of

Pre-clinical and Discovery stage candidates

Discontinued & Inactive candidates

Route of Administration

Pompe Disease pipeline report provides the therapeutic assessment of the pipeline drugs by the Route of Administration. Products have been categorized under various ROAs such as

Infusion
Intradermal
Intramuscular
Intranasal
Intravenous
Oral
Parenteral
Subcutaneous
Topical
Molecule Type

Products have been categorized under various Molecule types such as

Gene therapies



Small molecule

Vaccines

Polymers

Peptides

Monoclonal antibodies

Product Type

Drugs have been categorized under various product types like Mono, Combination and Mono/Combination.

Pompe Disease: Pipeline Development Activities

The report provides insights into different therapeutic candidates in phase II, I, preclinical and discovery stage. It also analyses Pompe Disease therapeutic drugs key players involved in developing key drugs.

**Pipeline Development Activities** 

The report covers the detailed information of collaborations, acquisition and merger, licensing along with a thorough therapeutic assessment of emerging Pompe Disease drugs.

**Report Highlights** 

The companies and academics are working to assess challenges and seek opportunities that could influence Pompe Disease R&D. The therapies under development are focused on novel approaches to treat/improve Pompe Disease.

In February 2019, the U.S. Food and Drug Administration (FDA) granted Amicus a Breakthrough Therapy Designation to ATB200/AT2221 for the treatment of late onset Pompe disease.



In November 2019 ATB200/AT2221 was granted a PIM by the MHRA. Orphan designations have been granted by the European Commission for both ATB200 and AT2221 in the treatment of glycogen storage disease type II (Pompe disease).

In September 2017, ATB200/AT2221was granted US orphan drug status for the treatment of Pompe disease.

Pompe Disease Report Insights

Pompe Disease Pipeline Analysis

Therapeutic Assessment

**Unmet Needs** 

Impact of Drugs

Pompe Disease Report Assessment

**Pipeline Product Profiles** 

Therapeutic Assessment

**Pipeline Assessment** 

Inactive drugs assessment

**Unmet Needs** 

Key Questions

Current Treatment Scenario and Emerging Therapies:

How many companies are developing Pompe Disease drugs?



How many Pompe Disease drugs are developed by each company?

How many emerging drugs are in mid-stage, and late-stage of development for the treatment of Pompe Disease?

What are the key collaborations (Industry–Industry, Industry–Academia), Mergers and acquisitions, licensing activities related to the Pompe Disease therapeutics?

What are the recent trends, drug types and novel technologies developed to overcome the limitation of existing therapies?

What are the clinical studies going on for Pompe Disease and their status?

What are the key designations that have been granted to the emerging drugs?

**Key Players** 

Immusoft

Asklepios Biopharmaceutical

Audentes Therapeutics

Genzyme

Lacerta Therapeutics

Selecta Biosciences

Greenovation Biotech

BioMarin Pharmaceutical

Oxyrane

**Key Products** 



Cipaglucosidase alfa

SPK-3006

Recombinant Adeno-Associated Virus Acid Alpha-Glucosidase

Reveglucosidase alfa

Research programme: lysosomal storage disease therapeutics

Research programme: alpha-glucosidase gene therapy



### **Contents**

Introduction
Executive Summary
Pompe Disease: Overview
Causes
Mechanism of Action
Signs and Symptoms
Diagnosis
Disease Management
Pipeline Therapeutics
Comparative Analysis
Therapeutic Assessment
Assessment by Product Type
Assessment by Stage and Product Type
Assessment by Route of Administration
Assessment by Stage and Route of Administration
Assessment by Molecule Type
Assessment by Stage and Molecule Type
Pompe Disease – DelveInsight's Analytical Perspective
In-depth Commercial Assessment
Pompe Disease companies' collaborations, Licensing, Acquisition -Deal Value Trends
Pompe Disease Collaboration Deals
Company-Company Collaborations (Licensing / Partnering) Analysis
Company-University Collaborations (Licensing / Partnering) Analysis
Late Stage Products (Phase III)
Comparative Analysis
Cipaglucosidase alfa: Amicus Therapeutics
Product Description
Research and Development
Product Development Activities
Mid Stage Products (Phase II and Phase I/II)
Comparative Analysis
SPK-3006: Spark Therapeutics
Product Description
Research and Development
Product Development Activities
Drug profiles in the detailed report
Early Stage Products (Phase I)



**Comparative Analysis** 

Recombinant Adeno-Associated Virus Acid Alpha-Glucosidase: Lacerta Therapeutics

**Product Description** 

Research and Development

Product Development Activities

Drug profiles in the detailed report.....

Pre-clinical and Discovery Stage Products

**Comparative Analysis** 

Drug Name: Company Name

**Product Description** 

Research and Development

Product Development Activities

**Inactive Products** 

**Comparative Analysis** 

Pompe Disease Key Companies

Pompe Disease Key Products

Pompe Disease- Unmet Needs

Pompe Disease- Market Drivers and Barriers

Pompe Disease- Future Perspectives and Conclusion

Pompe Disease Analyst Views

Pompe Disease Key Companies

Appendix



### **List Of Tables**

#### LIST OF TABLES

Table 1 Total Products for Pompe Disease Table 2 Late Stage Products Table 3 Mid Stage Products Table 4 Early Stage Products Table 5 Pre-clinical & Discovery Stage Products Table 6 Assessment by Product Type Table 7 Assessment by Stage and Product Type Table 8 Assessment by Route of Administration Table 9 Assessment by Stage and Route of Administration Table 10 Assessment by Molecule Type Table 11 Assessment by Stage and Molecule Type Table 12 Inactive Products



## **List Of Figures**

#### LIST OF FIGURES

Figure 1 Total Products for Pompe Disease Figure 2 Late Stage Products Figure 3 Mid Stage Products Figure 4 Early Stage Products Figure 5 Preclinical and Discovery Stage Products Figure 6 Assessment by Product Type Figure 7 Assessment by Stage and Product Type Figure 8 Assessment by Route of Administration Figure 9 Assessment by Stage and Route of Administration Figure 10 Assessment by Molecule Type Figure 11 Assessment by Stage and Molecule Type

Figure 12 Inactive Products



### I would like to order

Product name: Pompe Disease – Pipeline Insight, 2020

Product link: https://marketpublishers.com/r/P3EB8A0EB51EN.html

Price: US\$ 2,500.00 (Single User License / Electronic Delivery) If you want to order Corporate License or Hard Copy, please, contact our Customer Service: <u>info@marketpublishers.com</u>

### Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <u>https://marketpublishers.com/r/P3EB8A0EB51EN.html</u>