

Novità dal Meeting della Società Americana di Ematologia

Verona
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COORDINATORI

Angelo Michele Carella Pier Luigi Zinzani BOARD SCIENTIFICO

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### **Disclosures of Adriano Venditti**

Company name	Research support	Employee	Consultant	Stockholder	Speakers bureau	Advisory board	Other
Abbvie			х			х	
Astellas			X			х	
Servier			x			x	
Menarini			X			х	
BMS			x				x
Pfizer			х		х	х	
Medac			x				х
Janssen			X			х	х
AstraZeneca			x			x	
Otzuka			х			х	
Beigene			x			x	
GSK			х			х	
Jazz Pharmaceuticals			x			x	х
Novartis			x			х	
<b>Delbert Laboratoires</b>						x	



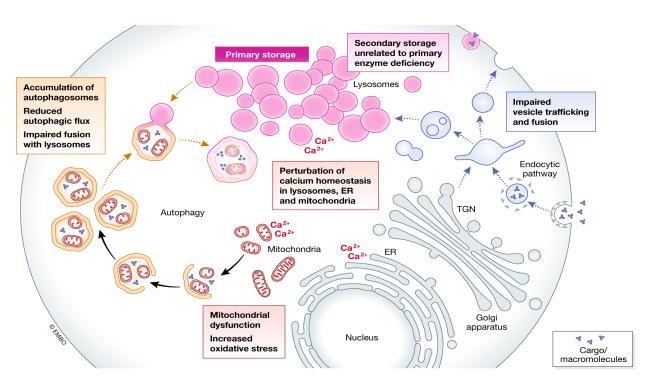
- Lysosomal storage disorders (LSDs) are inherited metabolic diseases due to deficiency of several components of lysosomal function
- LSDs are characterized by the accumulation of substrates in excess in several organs such as brain, spleen, liver, heart, bones, and muscles<sup>1</sup>
- Most LSDs are autosomal recessive disorders
  - Tree exceptions that are X-linked : Fabry Disease, Hunter Syndrome and Danon Disease
- Incidence of LSDs as a group was calculated to be 1 in 5000-8000 births



# The family of lysosomal storage disorders

- Glycogen storage disease type II
- Mucopolysaccharidoses
- Mucolipidoses
- Oligosaccharidoses
- Lipidoses
- Sphingolipidoses (Gaucher Disease)
- Lysosomal transport diseases

### The view of lysosomal storage disorders

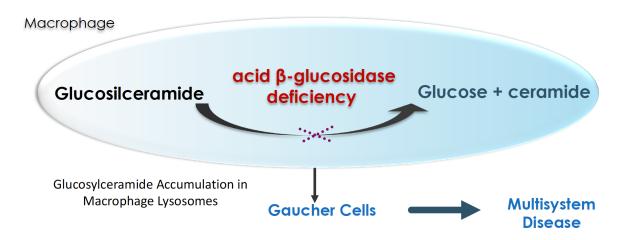


#### Gaucher Disease is the most frequent lysosomal storage disorder

The pathogenesis of Gaucher disease depends on mutations in the GBA1 gene that lead to deficiency of acid  $\beta$ -glucosidase enzyme activity  $^{1-4}$ 

This enzyme deficiency causes the accumulation of glucosylceramide within macrophage lysosomes

— Gaucher cells



1. Stirnemann et al. Int J Mol Sci 2017;18:441 2. Deegan PB & Cox TM. Drug Des Devel Ther 2012;6:81 3. Cerezyme<sup>®</sup> (imiglucerase) summary of product characteristics. Genzyme Europe B.V. (September 2017) 4. Nagral A. J Clin Exp Hepatol 2014;4:37

## **Prof. Derralynn Hughes**

- Clinical Director of Research an Innovation at RFL NHS Foundation Trust
- Prof. of Experimental Hematology at University College London
- Clinical Director of the NCL cancer Alliance
- Chair of the European Working Group on Gaucher Disease
- Chair of the Anaemia Clinical Practice Group
- Director of the Research Program in LSD

