



Universiteit
Leiden
The Netherlands

Zebrafish as research model to study Gaucher disease: Insights into molecular mechanisms

Lelieveld, L.T.

Citation

Lelieveld, L. T. (2020, October 20). *Zebrafish as research model to study Gaucher disease: Insights into molecular mechanisms*. Retrieved from <https://hdl.handle.net/1887/137851>

Version: Publisher's Version

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/137851>

Note: To cite this publication please use the final published version (if applicable).

Cover Page



Universiteit Leiden



The handle <http://hdl.handle.net/1887/137851> holds various files of this Leiden University dissertation.

Author: Lelieveld, L.T.

Title: Zebrafish as research model to study Gaucher disease: Insights into molecular mechanisms

Issue date: 2020-10-20

Promotiecommissie

Promotor: Prof. dr. J.M.F.G. Aerts Leiden University
Copromotor: dr. R.G. Boot Leiden University

Overige leden: Prof. dr. M. van der Stelt Leiden University
Prof. dr. J. Brouwer Leiden University
Prof. dr. A.H. Meijer Leiden University
Prof. dr. M. Horowitz Tel Aviv University
Prof. dr. L. Ramakrishnan University of Cambridge

ISBN: 978-94-6421-015-6
Printed by: Ipsonkamp printing
Cover design: Harald Pieper - In Zicht Grafisch Ontwerp

All rights reserved. No part of this thesis may be reproduced in any matter or by any means without permission from the author.

Zebrafish as research model to study Gaucher disease. Insights into molecular mechanisms

Proefschrift

ter verkrijging van
de graad van Doctor aan de Universiteit Leiden,
op gezag van Rector Magnificus prof.mr. C.J.J.M. Stolk,
volgens besluit van het College voor Promoties
te verdedigen op dinsdag 20 oktober 2020
klokke 11:15 uur

door

Lindsey Theresia Lelieveld

geboren te Monster

op 28 juli 1990

Table of contents

	Chapter 1 General introduction and goals of this thesis • 6-37
	Chapter 2 Biochemical evaluation and comparison of GCase enzymes of different species • 38-63
	Chapter 3 Pharmacological modulation of glycosidases in zebrafish • 64-85
	Chapter 4 CRISPR/Cas9 mediated genome editing in zebrafish • 68-115
	Chapter 5 Role of Gba1 & Gba2 in aberrant glycosphingolipid metabolism of zebrafish larvae • 116-145
	Chapter 6 The detrimental role of excessive GlcSph during GCase deficiency in zebrafish • 146-173
	Chapter 7 Progression of pathology in zebrafish with GCase deficiency • 174-203
	Chapter 8 α -Galactosidases in zebrafish • 204-229
	Chapter 9 Discussion and future prospect • 230-249
	Summary, Samenvatting, Publications, About the author • 250-263
	Dankwoord

