# Cerenis<sup>TM</sup> THERAPEUTICS

### **The Lipid Metabolism Company**



**Corporate Presentation | March 2018** 



This document has been prepared by Cerenis Therapeutics (the "Company") and is for information purposes only.

The information and opinions contained in this document are provided as of the date of this document only and may be updated, supplemented, revised, verified or amended, and thus such information may be subject to significant changes. The Company is not under any obligation to update the information or opinions contained herein which are subject to change without prior notice.

The information contained in this document has not been subject to independent verification. No representation, warranty or undertaking, express or implied, is made as to the accuracy, completeness or appropriateness of the information and opinions contained in this document. The Company, its subsidiaries, its advisors and representatives accept no responsibility for and shall not be held liable for any loss or damage that may arise from the use of this document or the information or opinions contained herein.

This document contains information on the Company's markets and competitive position, and more specifically, on the size of its markets. This information has been drawn from various sources or from the Company's own estimates. Investors should not base their investment decision on this information.

This document contains certain forward-looking statements. These statements are not guarantees of the Company's future performance. These forward-looking statements relate to the Company's future prospects, developments and marketing strategy and are based on analyses of earnings forecasts and estimates of amounts not yet determinable. Forward-looking statements are subject to a variety of risks and uncertainties as they relate to future events and are dependent on circumstances that may or may not materialize in the future. Forward-looking statements cannot, under any circumstance, be construed as a guarantee of the Company's future performance and the Company's actual financial position, results and cash flow, as well as the trends in the sector in which the Company operates, may differ materially from those proposed or reflected in the forward-looking statements contained in this document. Even if the Company's financial position, results, cash-flows and developments in the sector in which the Company operates were to conform to the forward-looking statements contained in this document, such results or developments cannot be construed as a reliable indication of the Company's future results or developments. The Company does not undertake any obligation to update or to confirm projections or estimates made by analysts or to make public any correction to any prospective information in order to reflect an event or circumstance that may occur after the date of this document.

This document does not constitute an offer to sell or subscribe or a solicitation to purchase or subscribe for securities in France, the United States or any other jurisdiction. Securities may not be offered or sold in the United States absent registration under the US Securities Act of 1933, as amended, or an exemption from registration thereunder. No public offering of securities may be conducted in France or abroad prior to the delivery by the French Autorité des marchés financiers (Financial Markets Authority) of a visa on a prospectus that complies with the provisions of Directive 2003/71/CE as amended. No offering of securities is contemplated in France or any jurisdiction outside France.







#### An Experienced Management Team



#### Jean-Louis DASSEUX, PhD, MBA

#### Founder and CEO

- More than 30 years of experience in the pharmaceutical industry (Pfizer, Esperion Therapeutics, Fournier Laboratories)
- A leading world expert in lipid metabolism, atherosclerosis and cardiovascular diseases
- Inventor of more than 85 patent families relating to HDL, the treatment of cardiovascular diseases and targeted delivery of active agents in oncology .
- Two products currently in phase III clinical trials (Bempedoic acid at Esperion Therapeutics and CER-001 at Cerenis Therapeutics)
- Esperion Therapeutics sold to Pfizer for \$1.3 Billion in 2004



### Cyrille TUPIN, CPA

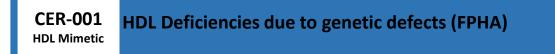
- Audit Director at Sygnatures, the largest private auditing and consulting company in Toulouse, France
- More than 7 years at PWC working on high-profile business transactions

4



#### **Target Conditions with High Unmet Medical Need:**





CER-209 NAFLD/NASH and Associated Atherosclerosis

HDLTargeted HDL Drug Delivery in Immuno-Oncology andPLATFORMChemotherapy

#### A LISTED COMPANY WITH SUBSTANTIAL POTENTIAL IN LIPID METABOLISM AND ONCOLOGY

## Cerenis Multiple Value-Creating Catalysts over Next 9 months

		Preclinical	Phase I	Phase II	Phase III	Market
Programs in d	levelopment					
CER-001	Genetic HDL deficiencies (FPHA <sup>1</sup> )	Two orphan disease designations <sup>2</sup> TANGO Phase III results 4Q2018			Filing for Market Approval end 2019	
CER-209	NAFLD/NASH and Atherosclerosis	Phase I result	s 2S2018			
HDL PLATFORM HDL biomimetics and Cargomer*	Specific tumor cells targeting and imaging	TARGET <sup>4</sup> Phase II results 2Q2018				
	Targeted delivery of therapeutic agents			Y		
uture growth drivers						
CER-001	Familial hypercholesterolemia (FH <sup>3</sup> )					
CER-002	Dyslipidemia					- 1. Familial Primary Hypo Alpho
	NASH					<ol> <li>ApoA-I and ABCA1 deficience</li> <li>Familial Hypercholesterolent</li> <li>The TARGET study is a single</li> </ol>
CER-522	Aortic valve stenosis				Erik Stroes and Hanneke Van Laarhoven from the. Center enrolling adult subjects with a pathologica primary esophageal carcinoma in situ	

#### THREE TARGET INDICATIONS WITH HIGH UNMET MEDICAL NEED: FPHA, NAFLD/NASH/ATHEROSCLEROSIS AND IMMUNO-ONCOLOGY

## **Cerenis** A Solid IP Covering Composition of Matter and Methods of Use

#### 16 patent families protecting compounds, indications and manufacturing/diagnostic methods

PRODUCT	INDICATION	MANUFACTURING/DIAGNOSTIC	
Family 1: CER-001, charged lipoproteins	<b>Family 2:</b> Manufacturing methods for reconstituted HDL particles and highly-homogenous resulting populations of HDL particles		
Families 12: Apomer®	<b>Family 4:</b> Treatment of Dyslipidemias	<b>Family 3:</b> Companion diagnostics and dosage of CER-001	
Family 6: HDL mimetic peptides (CER-522 Family 7: P2Y13 receptor agonists (CER-2	<b>Family 5:</b> Synthetic sphingomyelin synthesis / production methods		
Family 11: Cargomer® Families 14 – 15 – 16: Drug delivery HDL	<b>Family 9:</b> Carrier particles for administering drugs		
	Family 13: Imaging by labeled HDL		
Family 8: PPAR agonists (CER-002)			

Corporate Presentation | March 2018

7



### **CER-209: Major Potential in the Treatment of Patients** with NAFLD/NASH and Atherosclerosis





- Non-alcoholic fatty liver disease (NAFLD) has become one of the **most frequent chronic liver diseases** in the Western society and its prevalence is likely to rise even further.
- Pathogenesis of NAFLD results from disturbed lipid homeostasis and excessive accumulation of lipids in the liver. NAFLD often develops in the context of the metabolic syndrome (MetS) and is strongly associated with obesity, insulin resistance (IR), type 2 diabetes mellitus (T2DM), and dyslipidemia. Nonalcoholic steatohepatitis (NASH), a more advanced form of the disease, is characterized by steatosis, inflammatory changes, and hepatocyte cell ballooning associated with varying degrees of liver fibrosis
- According to the American Liver Foundation, NASH is one of the leading causes of cirrhosis in adults in the United-States.
- 25% of adults having NASH will develop a cirrhosis. There currently are no approved therapies for these diseases.
- In addition, epidemiological studies demonstrate that the cardiovascular risk is increased in patients with hepatic steatosis and that the cardiovascular diseases associated are the leading causes of death in patients with liver steatosis<sup>1</sup>.

<sup>1.</sup> Franque S. M. et al. Journal of Hepatology, 2016, vol. 65, 425-443 World J Gastroenterol 2015 June 14; 21(22): 6820-6834



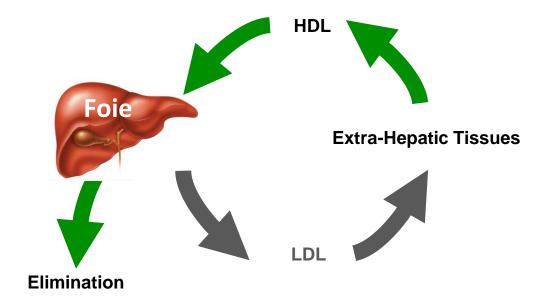
#### Unique HDL therapy enables to address NAFLD/NASH and Atherosclerosis

- CER-209 is the first in class drug candidate of oral P2Y13 receptor agonists. CER-209, a new-patented molecule coming from Cerenis' research, has the potential to play an innovative role by addressing both hepatic steatosis and atherosclerosis.
- CER-209's major activity in NASH and NAFLD treatment lies in its ability to promote HDL recognition and lipid elimination by the liver, through the activation of natural metabolic pathways mediated by the P2Y13 receptor<sup>1</sup>.
- Since atherosclerosis is frequently observed in patients with NASH, these patients have high cardiovascular risk. Thus, an agent that lowers that risk in addition to treating steatohepatitis and liver inflammation is of considerable value.
- Current NAFLD/NASH treatments based on lipid lowering drugs attempt to reduce LDL cholesterol but they can increase liver enzymes.

#### CER-209, A FIRST-IN-CLASS THERAPEUTIC SOLUTION TO ADDRESS BOTH NASH AND ATHEROSCLEROSIS

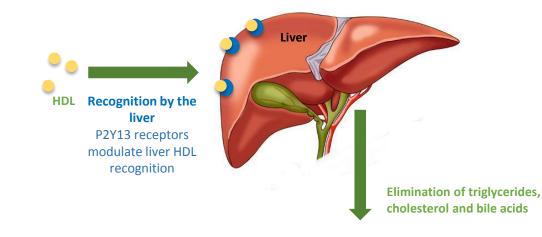


Reverse Lipid Transport (RLT) Controls Lipid Homeostasis



## CER-209 increases HDL recognition by the liver by stimulating the activity of HDL receptors

- A new mechanism of action which involves the last steps of the RLT pathway
- Agonist activity of CER-209 on the liver P2Y13 receptors facilitates elimination of mature HDL particles loaded with lipids, through better HDL liver recognition and increased bile secretion
- CER-209 treatment leads to higher fecal excretion of triglycerides, cholesterol and bile acids.

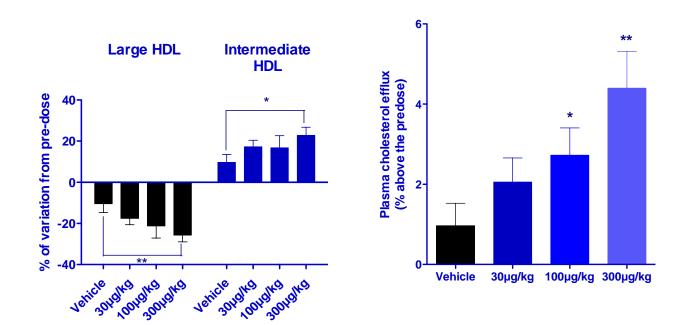


#### CER-209, A UNIQUE MECHANISM OF ACTION



#### **CER-209** Decreases HDL Size and Improves Cholesterol Efflux

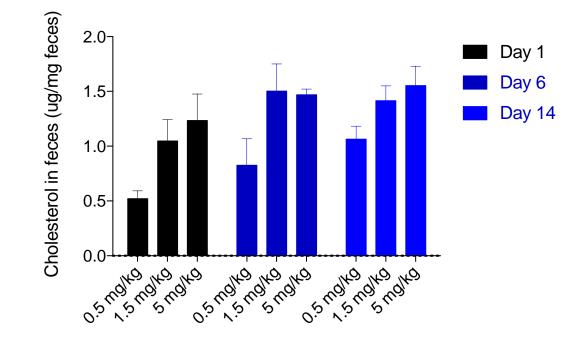
(preclinical model)



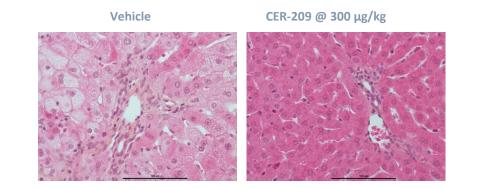


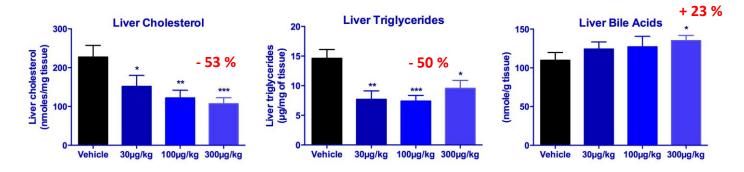
#### **CER-209 Promotes Fecal Cholesterol Excretion**

(Non-Human Primate, 8H collection, N=4, after CER-209 treatment)









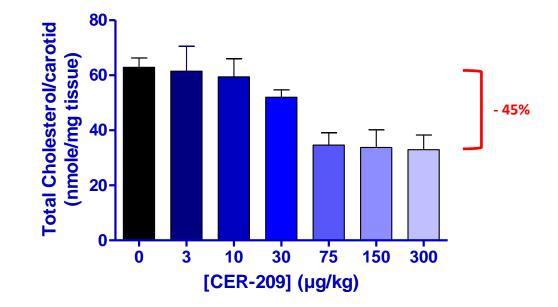
Cerenis US Patent 8,349,833 (2013); Goffinet M. et al (2014) PLOS One

\*p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001.



#### CER-209 also inhibits carotid atherosclerotic plaque progression

(APOE-/- preclinical model, Flow cessation model, 15 days of treatement)





#### Single Dose Tolerance study (SDT) completed

- No drug related safety nor tolerance issues identified
- The pharmacokinetics observations support CER-209 once daily oral dosing

#### Multiple Dose Tolerance study (MDT) in subjects with a high risk of NAFLD/NASH

- Randomized, double blind and placebo controlled trial
- Daily doses of 10, 30, and 60 mg of CER-209 will be given for 28 days
- Primary objective is safety and tolerability. Pharmacokinetic and pharmacodynamics endpoints will also be studied
- Exploratory endpoint: First assessment of the mechanism of action associated with the P2Y13 receptor
  - > Change in the levels of lipids in the liver as measured using magnetic resonance imaging (MRI-PDFF)
  - > Rate of fecal elimination of cholesterol and bile acids



**CER-001**: major potential in the treatment of patients with HDL deficiencies due to genetic defects

- 1. A potential for value creation in the short term (TANGO Phase III results 4Q2018)
- 2. Two orphan drug designations granted
- 3. A high unmet medical need
- 4. Application for marketing approval in 2019
- 5. A strong patent estate and a manufacturing process validated on an industrial level

CER-209: major potential in the treatment of patients with atherosclerosis and NAFLD/NASH

- 1. A potential of value creation in the short term (Phase I results 2S2018)
- 2. A high unmet medical need
- 3. CER-209, a highly specific P2Y13 receptor agonist promoting lipid elimination covered by a strong IP
- HDL Targeted Drug Delivery: Immuno-Oncology and Chemotherapy
  - 1. A potential of value creation in the short term (TARGET Phase II results 2Q2018)
  - 2. An innovative proprietary technology leveraging the natural properties of HDL to specifically target and deliver active pharmaceutical ingredients
  - 3. High unmet medical need

#### A LISTED COMPANY WITH SUBSTANTIAL POTENTIAL IN LIPID METABOLISM AND ONCOLOGY

# Cerenis<sup>TM</sup> THERAPEUTICS

**Corporate presentation – March 2018**