

Results of ODYSSEY OUTCOMES Trial

Evaluation of long-term cardiovascular outcomes after Acute Coronary Syndrome (ACS) during treatment with Praluent[®] (alirocumab)

Investor call at ACC, Orlando, March 10, 2018



Sanofi Forward-Looking Statements

This presentation contains forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995, as amended. Forward-looking statements are statements that are not historical facts. These statements include projections and estimates and their underlying assumptions, statements regarding plans, objectives, intentions and expectations with respect to future financial results, events, operations, services, product development and potential, and statements regarding future performance. Forward-looking statements are generally identified by the words "expects", "anticipates", "believes", "intends", "estimates", "plans" and similar expressions. Although Sanofi's management believes that the expectations reflected in such forward-looking statements are reasonable, investors are cautioned that forward-looking information and statements are subject to various risks and uncertainties, many of which are difficult to predict and generally beyond the control of Sanofi, that could cause actual results and developments to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. These risks and uncertainties include among other things, the uncertainties inherent in research and development of new products, including future clinical trial results and analysis of clinical data (including post-marketing data), decisions by regulatory authorities, such as the FDA or the EMA, regarding whether and when to approve any drug, device or biological application that may be filed for any such product candidates as well as their decisions regarding labelling and other matters that could affect the availability or commercial potential of such product candidates. There are additional risks that may cause actual results to differ materially from those contemplated by the forward-looking statements, such as the lack of commercial success of certain product candidates once approved, pricing pressures, both in the United States and abroad, including pharmaceutical reimbursement and pricing, the future approval and commercial success of therapeutic alternatives, risks associated with intellectual property and any related pending or future litigation and the ultimate outcome of such litigation, changes in applicable laws or regulations, the impact of cost containment initiatives and subsequent changes thereto, as well as those risks and uncertainties discussed or identified in the public filings with the SEC and the AMF made by Sanofi, including those listed under "Risk Factors" and "Cautionary Statement Regarding Forward-Looking Statements" in Sanofi's annual report on Form 20-F for the year ended December 31, 2017. Other than as required by applicable law, Sanofi does not undertake any obligation to update or revise any forward-looking information or statements.

Regeneron Forward-Looking Statements

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Agenda

Opening remarks

- Olivier Brandicourt, MD Chief Executive Officer, Sanofi
- Leonard S. Schleifer, MD, PhD Founder, President and Chief Executive Officer, Regeneron

Detailed Review of ODYSSEY OUTCOMES data

 Dr Eric Peterson, MD, MPH, FAHA, FACC - Distinguished Professor of Medicine in the Division of Cardiology and Executive Director of the Duke Clinical Research Institute

Praluent® Value Proposition

- Jay Edelberg, MD, PhD Vice President, Global Cardiovascular Development, Sanofi
- Marion McCourt Senior Vice President and Head of Commercial, Regeneron

Concluding remarks

- Olivier Brandicourt, MD Chief Executive Officer, Sanofi
- Leonard S. Schleifer, MD, PhD Founder, President and Chief Executive Officer, Regeneron

Q&A Session

Opening Remarks

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Patients with a History of ACS and High LDL-C Represent a High Risk Population in CVD, A Major Global Unmet Need

(3) World Heart Foundation.

#1 Cause of death globally ⁽¹⁾	~17.7m Worldwide Deaths in 2015 ⁽¹⁾
80% Of all CVD deaths are due to heart attacks and strokes ⁽¹⁾	\$1,044bn Total global cost of CVD expected in 2030 ⁽³⁾

- Cardiovascular disease kills more people worldwide than any other disease
- Patients with acute coronary syndrome (ACS), such as heart attack, are at high risk despite statin therapy
 - → Heart attack is a common ACS event associated with an increased mortality risk⁽²⁾
- Following ACS, the risk for future cardiovascular events (residual risk), including death, is high and related to levels of low-density lipoprotein-cholesterol (LDL-C)

The Majority of Patients Do Not Achieve LDL-C Targets on Statin Therapy

- Due to a variety of reasons, at least 50% of patients discontinue statins within 1 year of treatment initiation⁽¹⁾
- Statin intolerance occurs in up to 15% of patients⁽²⁾

Patient Population on Statin Therapy		Patients that remained <u>> 100 mg/dL</u>
Patients with ASCVD	.' →	29% ⁽³⁾
Patients with HeFH	ŀ	98% ⁽³⁾

ASCVD = Atherosclerotic Cardiovascular Disease; CV = cardiovascular; HeFH = heterozygous familial hypercholesterolemia (1) Maningat P et al. Curr Atheroscler Rep. 2013;15:291. (2) Fitchett DH et al. Circulation. 2015;131:e389 e391.

(3) Wong ND et al. J Clin Lipidol. 2016;10:1109–18.

ODYSSEY OUTCOMES is the First Non-Statin, Lipid-Lowering Study to be Associated with a Reduction of All-Cause Mortality⁽¹⁾

Discovery of the LDL-C Receptor	4S Study was First to Show that a Statin Could Reduce Both CV and All-Cause Mortality in High-Risk Patients	PCSK9 From Discovery to Clinic	ODYSSEY
1974	1988-1994	2003–Today	OUTCOMES
 Drs. Brown and Goldstein discover the LDL-C receptor 	 First statin (simvastatin) study to show an all-cause mortality benefit (primary endpoint) Study demonstrated a 30% reduction in all all-cause mortality Enrolled patients with baseline LDL-C of 186 mg/dL. On treatment lowering of 65 mg/dL Sponsored by Merck & Co, under the leadership of Dr. Roy Vagelos (Chairman of REGN Board) Changed paradigm of treating CV disease with statins 	 2003: PCSK9 (NARC-1) characterized⁽²⁾ 2006: PCSK9 LOF mutations associated with 28% ↓ LDL-C⁽³⁾ 2010: First subject treated with (alirocumab) PCSK9 inhibitor⁽⁴⁾ 2015: FDA approves Praluent, the first PCSK9 inhibitor⁽⁵⁾ 	ODYSSEY OUTCOMES is the first non-statin, lipid-lowering study to be associated with a lower rate of death in high risk patients ⁽¹⁾

The use of Praluent® to reduce the risk of major adverse CV events is investigational and has not been evaluated by any regulatory authority.

CHD=Coronary Heart disease; LDL=Low-Density Lipoprotein; LDL-C=Low-Density Lipoprotein Cholesterol; LOF=Loss Of Function; mAb=monoclonal antibody; PCSK9=Proprotein Convertase Subtilisin/Kexin type 9. (1) HR=0.85; Cl: 0.73-0.98; nominal p value = 0.026 (2) Seidah NG, et al. *PNAS*. 2003;100:928-933

- (3) Cohen JC, et al. N Engl J Med. 2006; 354(12):1264-1272
- (4) Stein EA, et al. N Engl J Med. 2012;366(12): 1108-1118;
- (5) PRALUENT Prescribing Information. Sanofi/Regeneron Pharmaceuticals, 2015

Detailed Review of ODYSSEY OUTCOMES Data

• Dr Eric Peterson, MD, MPH, FAHA, FACC - Distinguished Professor of Medicine in the Division of Cardiology and Executive Director of the Duke Clinical Research Institute





Treatment Assignment



Patient and investigators remained blinded to treatment and lipid levels for the entire duration of the study



Schwartz GG, et al. Am Heart J 2014;168:682-689.e1.

Patient Disposition



- Premature treatment discontinuation
- Blinded switch to placebo (2 consecutive LDL-C values <15 mg/dL)
- Patients lost to follow-up (vital status)

ODYSSEY OUTCOMES 11

*Ascertainment was complete for 99.1% and 99.8% of potential patient-years of follow-up for the primary endpoint and all-cause death, respectively

LDL-C: ITT and On-Treatment Analyses



Months Since Randomization

*Excludes LDL-C values after premature treatment discontinuation or blinded switch to placebo †All LDL-C values, including those after premature treatment discontinuation, blinded down titration, or blinded switch to placebo



ACC.18

Primary Efficacy Endpoint: MACE



ACC.18

OUTCOMES 13

*Based on cumulative incidence

Primary Efficacy and Components

Endpoint, n (%)	Alirocumab (N=9462)	Placebo (N=9462)	HR (95% CI)	Log-rank P-value
ΜΑϹΕ	903 (9.5)	1052 (11.1)	0.85 (0.78 <i>,</i> 0.93)	0.0003
CHD death	205 (2.2)	222 (2.3)	0.92 (0.76, 1.11)	0.38
Non-fatal MI	626 (6.6)	722 (7.6)	0.86 (0.77, 0.96)	0.006
Ischemic stroke	111 (1.2)	152 (1.6)	0.73 (0.57, 0.93)	0.01
Unstable angina	37 (0.4)	60 (0.6)	0.61 (0.41, 0.92)	0.02



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ACC.18

All-Cause Death



*Nominal P-value †Based on cumulative incidence OUTCOMES 15

Post Hoc Analysis: All-Cause Death by Baseline LDL-C Subgroups





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Efficacy: Subgroup with Baseline LDL-C ≥100 mg/dL (Median Baseline LDL-C 118 mg/dL)

Endpoint, n (%)	Alirocumab (N=2814)	Placebo (N=2815)	Absolute risk reduction (%)	HR (95% CI)
MACE	324 (11.5)	420 (14.9)	3.4	0.76 (0.65, 0.87)
CHD death	69 (2.5)	96 (3.4)	1.0	0.72 (0.53, 0.98)
CV death	81 (2.9)	117 (4.2)	1.3	0.69 (0.52, 0.92)
All-cause death	114 (4.1)	161 (5.7)	1.7	0.71 (0.56, 0.90)



ACC.18

Safety (1)

Treatment-emergent adverse events, n (%)	Alirocumab (N=9451)	Placebo (N=9443)
Any	7165 (75.8)	7282 (77.1)
Serious	2202 (23.3)	2350 (24.9)

Laboratory value	Alirocumab	Placebo
ALT >3 × ULN, n/N (%)	212/9369 (2.3)	228/9341 (2.4)
Creatine kinase >10 × ULN, n/N (%)	46/9369 (0.5)	48/9338 (0.5)



Safety (2)

Event	Alirocumab (N=9451)	Placebo (N=9443)
Diabetes worsening or diabetic complications: <i>pts</i> <i>w/DM at baseline</i> , n/N (%)	506/2688 (18.8)	583/2747 (21.2)
New onset diabetes; <i>pts w/o DM at baseline</i> , n/N (%)	648/6763 (9.6)	676/6696 (10.1)
General allergic reaction, n (%)	748 (7.9)	736 (7.8)
Hepatic disorder, n (%)	500 (5.3)	534 (5.7)
Local injection site reaction, n (%)*	360 (3.8)	203 (2.1)
Neurocognitive disorder, n (%)	143 (1.5)	167 (1.8)
Cataracts, n (%)	120 (1.3)	134 (1.4)
Hemorrhagic stroke, n (%)	9 (<0.1)	16 (0.2)



Conclusions

Compared with placebo in patients with recent ACS, alirocumab 75 or 150 mg subcutaneous Q2W targeting LDL-C levels 25–50 mg/dL, and allowing levels as low as 15 mg/dL:

- 1. Reduced MACE, MI, and ischemic stroke
- 2. Was associated with a lower rate of all-cause death
- 3. Was safe and well-tolerated over the duration of the trial



Clinical Perspective

 In this nearly 19,000-patient placebo-controlled trial, including many patients treated for ≥3 years, there was no safety signal with alirocumab other than injection site reactions



Clinical Perspective

- In this nearly 19,000-patient placebo-controlled trial, including many patients treated for ≥3 years, there was no safety signal with alirocumab other than injection site reactions
- Among patients with ACS and baseline LDL-C ≥100 mg/dL, alirocumab reduced MACE by 24% (ARR 3.4%) and all-cause death by 29% (ARR 1.7%) compared with placebo

>These are the patients who may benefit most from treatment



Praluent® Value Proposition

- Jay Edelberg, MD, PhD Vice President, Global Cardiovascular Development, Sanofi
- Marion McCourt Senior Vice President and Head of Commercial, Regeneron





ODYSSEY Phase 3 Program - Consistent Positive Results

22 global trials, including more than 29,300 patients across more than 3,000 study centers

HeFH population	HC in high CV	HC in high CV risk population		Additional populations/studies		
Add-on to max tolerated statin (\pm other LM	/IT)	Add-on to max tolerat	ted statin (\pm other LMT)			
		ODYSSEY OUTCOMES (EF LDL-C ≥ 70 mg/dL Event-driven, 2 year minim Conducted in 57 countries Enrollment Completed Nov	FC11570) N=18,600 num follow-up vember 2015			
 ODYSSEY OLE (LTS13463) N=1000 Patients with heFH from one of four parent studies 30 months 		ODYSSEY COMBO I (EFC1 LDL-C ≥ 70 mg/dL OR LDL-0 12 months	1568) N=316 C ≥ 100 mg/dL		ODYSSEY MONO (EFC11716) N=103 No background LLTs w/ LDL-C ≥ 100 mg/r 6 months	dL
ODYSSEY FH I (EFC12492) N=486 LDL-C ≥ 70 mg/dL OR LDL-C ≥ 100mg/dL 18 months		ODYSSEY COMBO II (EFC ² LDL-C ≥ 70 mg/dL 24 months	11569) N=720		ODYSSEY ALTERNATIVE (CL1119) N=3 LDL-C ≥ 70 mg/dL or LDL-C ≥ 100 mg/dL 6 months (+OLE)	14
ODYSSEY FH II (CL1112) N=249 − LDL-C ≥ 70 mg/dL OR LDL-C ≥ 100mg/dL 18 months		ODYSSEY EAST (EFC1338 LDL-C ≥ 70 mg/dL OR LDL- 6 months	9) N=600 ·C ≥ 100 mg/dL		ODYSSEY OPTIONS I (CL1110) N=355 LDL-C \geq 70 mg/dL OR LDL-C \geq 100 mg/dl 6 months	-
ODYSSEY HIGH FH (EFC12732) N=107 LDL-C ≥ 160 mg/dL 18 months		ODYSSEY KT (EFC14074) LDL-C \geq 70 mg/dL OR \geq 100 6 months	N=199) mg/dL		ODYSSEY OPTIONS II (CL1118) N=305 LDL-C ≥ 70 mg/dL OR LDL-C ≥ 100 mg/dI 6 months	-
ODYSSEY LONG TERM (LTS11717) N=2,341 LDL-C ≥ 70 mg/dL 18 months					ODYSSEY CHOICE I (CL1308) N=803 LDL-C \geq 70 mg/dL OR LDL-C \geq 100 mg/dL 300 mg Q4W dosing, 12 months	\checkmark
ODYSSEY JAPAN (EFC 13672) N=216 LDL-C ≥100 mg/dL OR LDL-C ≥120 mg/dL 12 months					ODYSSEY CHOICE II (EFC13786) N=233 LDL-C ≥ 70 mg/dL OR LDL-C ≥ 100 mg/dl 150 mg Q4W dosing, 6 months (+OLE)	
ODYSSEY APPRISE (LPS14245) N=1300 LDL-C ≥100 mg/dL OR LDL-C ≥130 mg/dL OR LDL 3 – 30 months	-C ≥160 mg/d	IL			ODYSSEY NIPPON (EFC14305) N=159 LDL-C ≥ 100 mg/dL OR LDL-C ≥ 120 mg/d 3 months (+OLE)	il 🗹
ODYSSEY ESCAPE (R727-CL-1216) N=63 Patients undergoing LDL-apheresis therapy 4 months		ODYSSEY DM – Insulin (LF LDL-C ≥ 70 mg/dL 6 months	PS14355) N=500		Primary endpoint met;	
		ODYSSEY DM – Dyslipiden Non-HDL-C ≥ 100 mg/dL 6 months	nia (LPS14354) N=42	0		

ODYSSEY OUTCOMES Provides Strong Clinical Evidence of Patient Benefit from Long-Term Therapy with Praluent^{®(1)}



Sanofi and Regeneron Committed to Make Praluent[®] Accessible for Patients with Greatest Health Risk and Unmet Need

 Precision medicine approach will focus efforts on high-risk patients, such as those who have had heart attacks or unstable angina and cannot reduce their LDL-C below 100 mg/dL despite maximally-tolerated statins



 For payers willing to reduce access barriers for high-risk patients, companies will offer net price within a cost-effective range, leveraging a new ICER analysis

Sanofi and Regeneron will engage with payers to offer a cost-effective net price to those who agree to provide straightforward access for patients with greatest need

Concluding remarks

- Olivier Brandicourt, MD Chief Executive Officer, Sanofi
- Leonard S. Schleifer, MD, PhD Founder, President and Chief Executive Officer, Regeneron





Building the Opportunity for Praluent[®] Based on Strong Body of Clinical Data from ODYSSEY Study Program



ODYSSEY OUTCOMES Establishes the Platform to Optimize the Long-Term Benefits of Praluent® Treatment for Patients

Met primary endpoint with 15% RRR of major CV events / MACE

The first non-statin, lipid-lowering trial to be associated with a reduction in all-cause mortality (nominal p=0.026)

For patients with LDL-C \geq 100 mg/dL, all MACE endpoints were meaningfully improved

Consistent benefit was observed across individual endpoints

With up to 5 years double-blind follow-up period, no imbalance observed in overall safety and safety of interest between groups

Q&A Session

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