

Full Year 2019 Financial Results







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Today's speakers



Frédéric Cren, MA/MBA, Chairman, CEO and Co-Founder



Pierre Broqua, Ph.D., CSO and Co-Founder



Jean Volatier, MA, CFO

Summary

- Full year 2019 highlights
- **Clinical pipeline update**
- **Financials**
- **Near-term catalysts**

Full Year 2019 Highlights

Full year 2019 highlights

Lanifibranor program

- ▶ Completion of patient recruitment in the NATIVE Phase IIb clinical study in NASH
- Fourth positive recommendation by the Data Safety Monitoring Board of the NATIVE clinical study
- Lifting of the target class clinical hold applying to PPAR agonists for lanifibranor by the FDA
- ► Fast Track designation from the FDA in NASH
- Approval of new patents protecting the use of lanifibranor in fibrotic conditions in 38 European countries and the US

Odiparcil program

- Publication of positive results from the Phase IIa iMProveS clinical study in MPS VI
- Launch of a new biomarker study in adults and children with MPS VI
- Grant of Rare Pediatric Disease Designation (RPDD) to odiparcil for the treatment of MPS VI by the FDA

Collaboration with AbbVie

► €3.5 million milestone payment for the enrollment of the first psoriasis patient in the clinical study underway with ABBV-157

Financials

- Three successful capital increases
- Extension of cash runway to end of Q2 2021

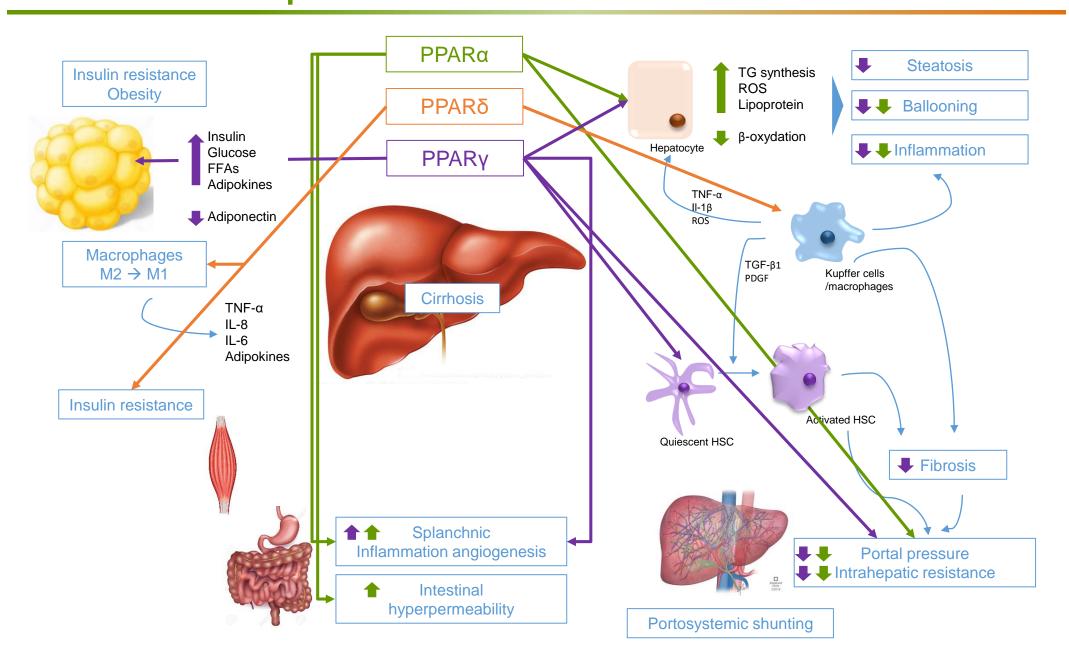


Clinical pipeline update

Lanifibranor

A new generation pan-PPAR agonist for a safe and efficacious treatment of fibrotic conditions

All three PPAR isoforms are needed for an optimal activity in NASH and for fibrosis improvement



Lanifibranor's mechanism of action addresses all key features of **NASH**

Metabolism

Insulin sensitivity

PPAR α , δ , γ

← HDLc

TG

Steatosis

FA uptake

PPAR_γ

FA catabolism

Lipogenesis

Inflammation and Ballooning

PPAR α,δ,γ

NFkB-dependent gene activation

Inflammasome

Ballooning

Fibrosis

PPARγ

Stellate cell proliferation and activation

Collagen and fibronectin production

Vascular

Portal pressure

 $PPAR\alpha,\gamma$

LSEC capillarization

Intrahepatic vascular resistance

NATIVE: a Phase III enabling study in NASH



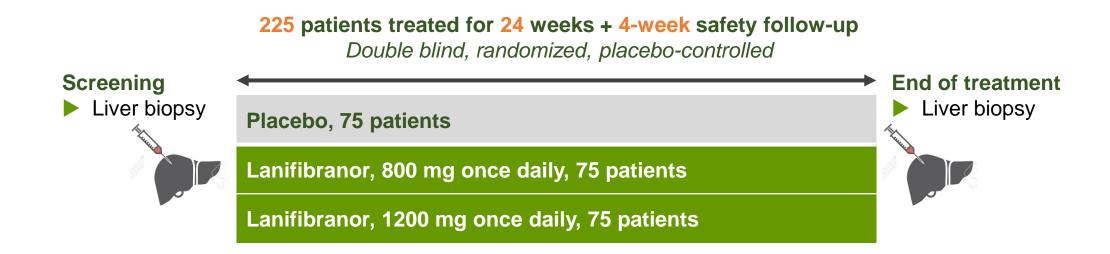
Trial design

Principal investigators

- Prof. Francque (Antwerp University, Belgium)
- Prof. Abdelmalek (Duke University, USA)

Inclusion criteria

- Biopsy confirmed NASH patients with an inflammation and ballooning score of 3 or 4
- Steatosis score ≥ 1 and fibrosis score < 4 (no cirrhosis)



More information on: http://www.native-trial.com/; clinicaltrials.gov identifier: NCT03008070



Primary efficacy endpoint



Primary endpoint

Decrease from baseline to week 24 of at least 2 points of the inflammation and ballooning score without worsening of fibrosis

- Main analysis: evaluation of treatment effect
 - 1200mg versus placebo
 - 800mg versus placebo
- Analyses by sub-groups
 - Diabetic versus non-diabetic
- Evaluation of dose effect: 1200mg versus 800mg

Secondary endpoints



Key secondary endpoints

- NASH resolution with no worsening of fibrosis
- Improvement of fibrosis by at least 1 stage without no worsening of NASH
- **NASH** improvers
 - Decrease from baseline to week 24 of at least 2 points of the NAS CRN score with no worsening of fibrosis

Other secondary endpoints

- Change in ISHAK-F: Improvement / No worsening
- Change in glucose metabolism parameters (fasting glucose, insulin, HOMA index, HbA1c, ...)
- Change in liver function tests (ALT, AST, GGT, Alkaline Phosphatase, Total Bilirubin)
- Change in main plasma lipid parameters (TC, HDL-C, calculated LDL-C, TG,...)
- Change in efficacy inflammatory markers (fibrinogen, hs-CRP, alpha2 macroglobulin, haptoglobin,...)
- Change in efficacy fibrosis markers (TIMP-1, TIMP-2, Hyaluronic acid, P3NP, NFS, FIB-4 score, ELF score, Pro-C3,...)
- Change in efficacy chemistry markers (Plasma Iron, Transferrin, Ferritin)
- Change in adiponectin

247 patients randomized exceeding the initial target of 225 patients





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► Mauritius

Country	Patients randomized	
Europe	183 (74%)	
US	36 (15%)	
Australia	13 (5%)	
Canada	8 (3%)	
Mauritius	7 (3%)	
Total	247 (100%)	

The screening strategy has successfully led to the recruitment of severe patients (I/II)

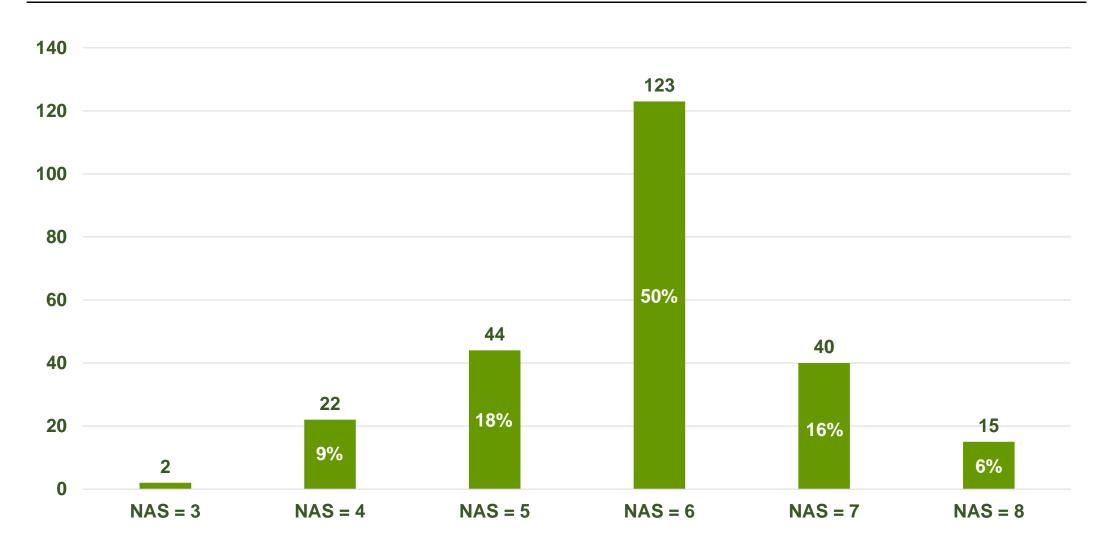


Parameters		Patients without diabetes (N = 147; 60%)	Patients with diabetes (N = 100; 40%)	Total (N = 247 ; 100%)
	Female	58%	59%	58%
Gender	Male	42%	41%	42%
	Mean ± SD	51.8 ± 13.5	56.2 ± 10.4	53.6 ± 12.5
Age	Median	54.0	57.0	55.0
	Min; Max	20 ; 76	28 ; 77	20 ; 77
	Mean ± SD	93.4 ± 19.0	92.9 ± 18.7	93.2 ± 18.9
Weight (kg)	Median	91.0	91.5	91.0
	Min; Max	51 ; 142	55 ; 145	51 ; 145
	Mean ± SD	32.7 ± 5.5	33.0 ± 5.3	32.9 ± 5.4
BMI (kg/m²)	Median	32.2	32.9	32.4
	Min; Max	21 ; 45	23 ; 44	21 ; 45
	F0 - F1	27%	20%	24%
Fibrosis Score (%)	F2	44%	37%	41%
	F3	29%	43%	35%
Mean SAF-Activity Score		3,22 out of 4	3,32 out of 4	3,26 out of 4

The screening strategy has successfully led to the recruitment of severe patients (II/II)



Patient distribution according to the NAS score



NATIVE trial: confirmation of lanifibranor's good safety profile by four positive DSMBs



Parameters	DSMB # 1	DSMB # 2	DSMB # 3	DSMB # 4
Date of DSMB meeting	June 2018	October 2018	March 2019	September 2019
# patients reviewed / % of total patients in the study	52 / 21%	94 / 38%	156 / 63%	227 / 92%
# patients having finished the study / % of total patients in the study	18 / 7%	36 / 15%	86 / 35%	139 / 57%
DSMB conclusion: continuation of the study as planned				

NATIVE: key milestones



Date

Last Patient First Visit September 2019

Last Patient Last Visit Q1 2020

Database hard lock Q2 2020

Headline results publication Q2 2020 Inventiva Pharma to host a KOL Breakfast at the International Liver Congress (EASL) 2020 Annual Meeting

The meeting will feature presentations by KOLs Pierre Bedossa, M.D., University Paris-Diderot, France and Sven Francque, M.D., University Hospital Antwerp who will discuss the NATIVE clinical study and its patient selection strategy.

Friday, April 17, 2020, 2:00 pm – 4:00 pm at IBIS Styles Excel London Hotel









Odiparcil

An orally available small molecule GAG clearance therapy to treat several forms of MPS

Odiparcil: an orally available small molecule substrate reduction therapy to treat several forms of MPS

- Decreases lysosomal accumulation of GAGs by promoting formation of soluble chondroitin sulfate (CS) and dermatan sulfate (DS) which can be excreted in the urine
- Oral administration and distribution in tissues that are poorly penetrated by enzyme replacement therapy
- Potential to be prescribed in combination with enzyme replacement therapy (ERT) and as monotherapy
- Odiparcil-mediated reduction of intracellular GAG accumulation demonstrated in in vitro and in vivo models
- ► Positive Phase IIa clinical study (iMProveS) in MPS VI adult patients with good safety and efficacy results. Phase I/II SAFE-KIDDs clinical study (pediatric study) in preparation
- Low toxicity in vivo and favorable safety and tolerability profile demonstrated in multiple Phase I and Phase II clinical studies in unrelated indication⁽¹⁾ (administered to >1,800 subjects)
- ► "Method of use" patent granted in the United States and in Europe with LOE⁽²⁾ 2039, including 5-year extension
- Orphan Drug Designation in MPS VI granted in the US and in the EU and Rare Pediatric Disease Designation in MPS VI granted in the US

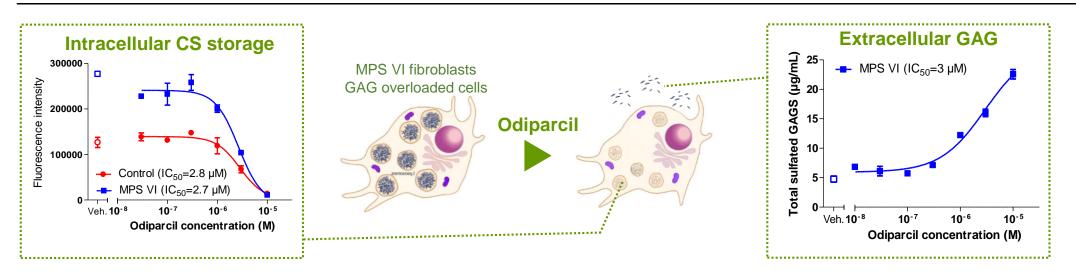


Odiparcil: a unique mechanism of action potentially synergistic with ERT

Odiparcil diverts endogenous protein-bound GAG synthesis to soluble odiparcil-bound chondroitin sulfate (CS) and dermatan sulfate (DS) synthesis



Odiparcil decreases intracellular GAG accumulation in vitro in MPS VI patient cells



Odiparcil observed to reduce GAG accumulation in MPS VI patient cells

Source: H. Noh, J. I. Lee; Current and potential therapeutic strategies for mucopolysaccharidoses; Journal of Clinical Pharmacy, company data

Odiparcil: potential to address several types of MPS by its capacity to produce soluble dermatan and chondroitin sulfates

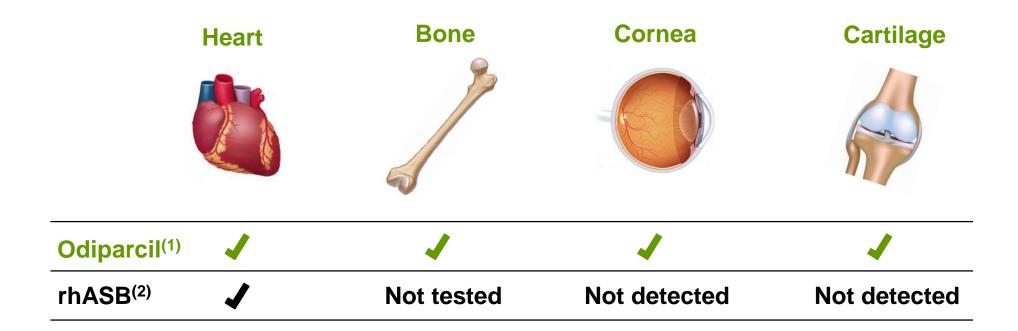
MPS Type	Frequency	DS	CS	HS	KS
MPS I-H		✓		√	
MPS I-S	1/100,000	√			
MPS I-H/S		√		✓	
MPS II Types A & B	1/100,000	√		✓	
MPS IV Type A	1/40,000 to 1/200,000		√		✓
MPS VI	1/240,000 to 1/400,000	√	√		
MPS VII	Very rare	√	√	✓	

Source: Rheumatology 2011 Therapy for mucopolysaccharodises; Vassili Valayannopoulos and Frits A. Wijburg

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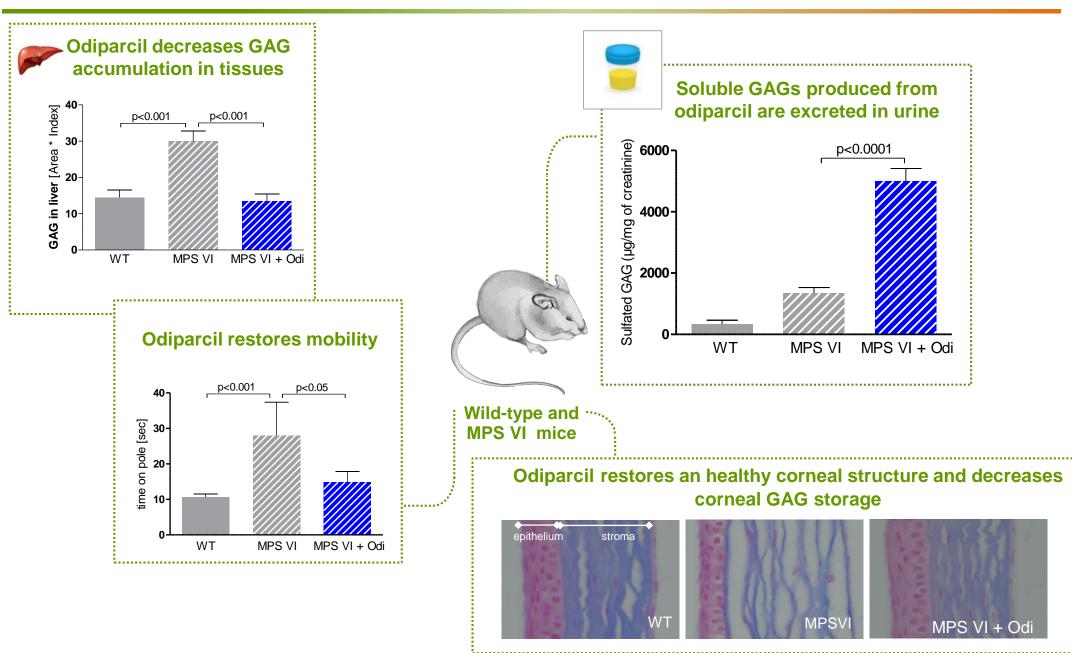
Odiparcil penetrates hard-to-reach tissues

Odiparcil is well distributed in tissues and organs that are poorly penetrated by recombinant enzymes, poorly vascularized or protected by a barrier



Source: (1) Odiparcil: tissue distribution following 25mg/kg oral administration, TID for 5 days; (2) Recombinant human ARB: Expressed as ratio of ARSB enzyme activity in the liver in MPS VI cats after repeat infusion (conditions: preliminary trial, Trial A and Trial B from Auclair et al. 2003)

Odiparcil: GAG clearance mechanism of action observed in MPS VI mice



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Source: Company data

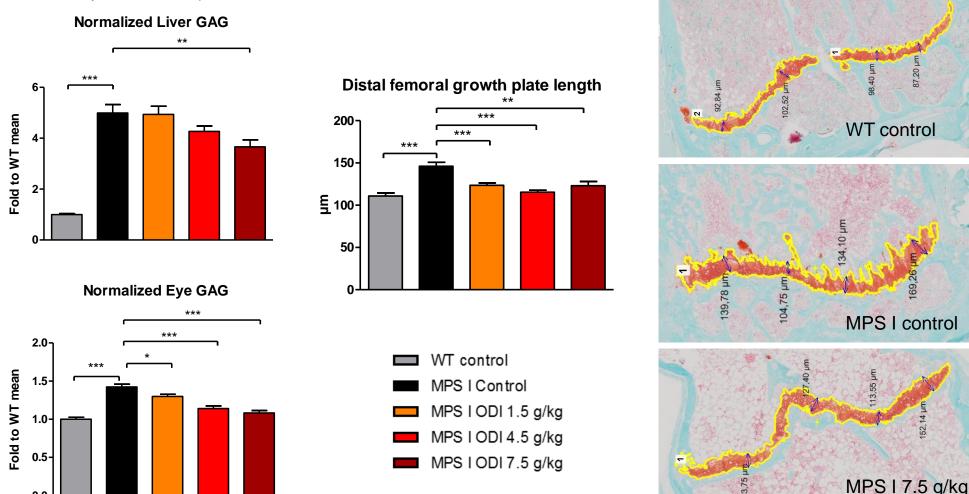
Odiparcil: preliminary data also indicate activity in MPS I mice

New Data

- Total GAG reduction in liver and eye(1)
- Reduction in the thickening of cartilage as measured in distal femoral growth plate (males and females data pooled together)

Positive changes in the morphology of the growth plate (in MPS I control "wobbly" boundary, reduction of protrusions

in MPS I odiparcil treated)



(1) males treated for 9 months and females for 10 months with odiparcil diet (for pooling, all data points normalized to the respective mean of the wt control)

odiparcil

iMProveS Phase IIa trial with odiparcil in MPS VI

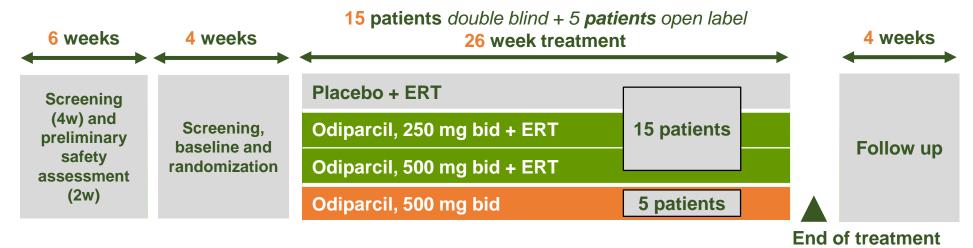


Phase IIa

- Phase III enabling study with evidence for dose selection and PK / PD response characterization
- Clinicaltrials.gov identifier: NCT03370653

Population





Endpoints

Safety

Clinical and biological assessments (standard tests)

Pharmacokinetics

Odiparcil plasma levels

Efficacy

- Leukocyte, skin and urinary GAG content
- Activity and mobility tests (6-minute walk test, upper limb function, shoulder mobility range)
- Cardiac, vascular and respiratory functions
- Eye impairment, hearing capacity, pain assessment, quality of life questionnaires

More information on: http://www.improves-mpsvi-trial.com/



Safety

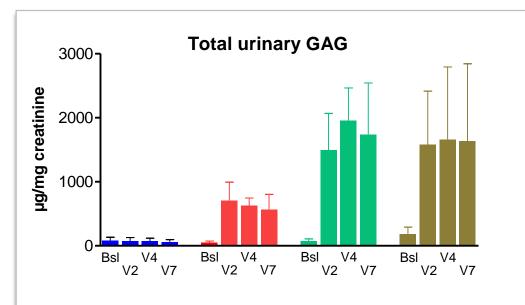


- The clinical study met its safety primary objective further supporting the good overall safety profile of odiparcil already observed in previous Phase I and Phase II clinical studies
- All 4 European investigators of the iMProveS study reported positive experience with odiparcil in terms of safety
- The majority of adverse events were mild or moderate
- One death occurred in the placebo group
- Three serious adverse events (SAEs) were assessed as treatment-related in patients in the odiparcil groups.
 - Two SAEs were biological findings qualified as laboratory false-positive
 - One SAE was a skin reaction, which is frequently observed in MPS patients
- Compared to previous Phase I and II clinical studies conducted with odiparcil for the prevention of thrombosis, no new safety findings were observed

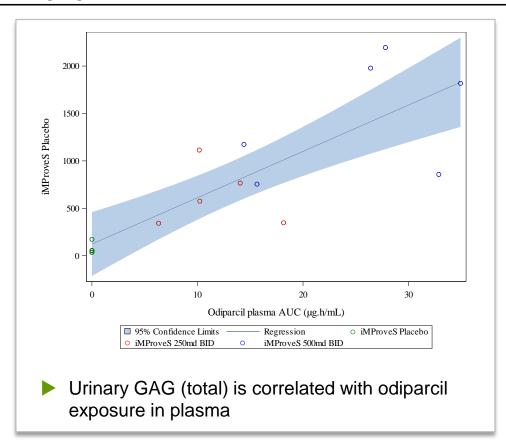
Odiparcil pharmacodynamics: total GAG levels in urine and PK/PD correlation



A dose-dependent urinary GAGs clearance, used as an activity biomarker, was clearly demonstrated in the entire odiparcil treated patient population



- uGAG (total) is increased after 4 week of odiparcil
- uGAG increase reaches a steady state after 4 weeks of treatment
- At 1000 mg/day the increase is comparable in ERT and non-ERT cohorts



- ERT + placebo ERT + odiparcil 500mg ERT + odiparcil 1000mg Non-ERT, odiparcil 1000mg
- The PK profile obtained in MPS VI patients treated with odiparcil is not impacted by ERT and is consistent with profiles previously observed in other Phase I and Phase II studies in prevention of thrombosis

Efficacy



Partially addressed by ERT



Endurance and mobility

- 6-minute walk test (6MWT)
- 9 hole peg test (9HPT)
- Range of motion of left and right shoulders (S-ROM)



Respiratory function

- Forced vital capacity (FVC)
- Forced expiratory volume in 1 second (FEV1)
- Number of evaluable patients at Visit 7 (26w) N=13
- Efficacy parameters assessed at baseline and endof-treatment (EOT)
- Two efficacy analyses
 - Statistical approach
 - Interpretation of blinded individual results by experts

Not addressed by ERT (hard-to-reach tissues)



Cardiac and vascular system

- ECG, Echocardiogram
- Carotid intima media thickness (CIMT)



Ophthalmology

- Visual acuity
- Corneal clouding
 - Subjective evaluation (slit lamp)
 - Quantitative measurement (iris camera: corneal opacity measure (COM))



Pain assessment

- Brief Pain Inventory (BPI) questionnaire
 - 'Intensity' dimension
 - 'Interferences' dimension



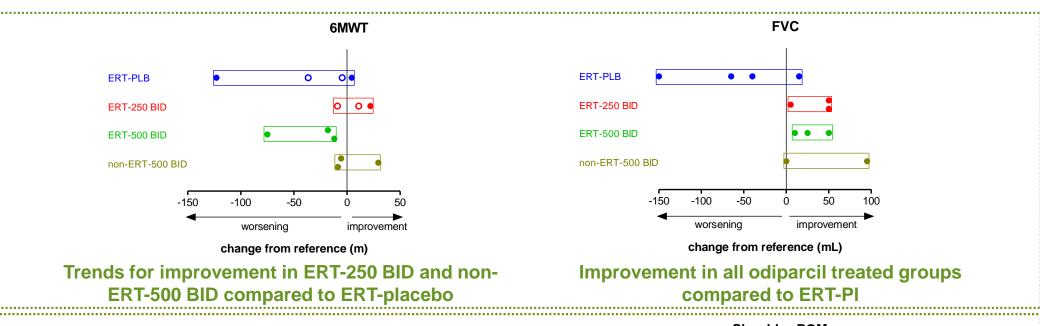
Audiology

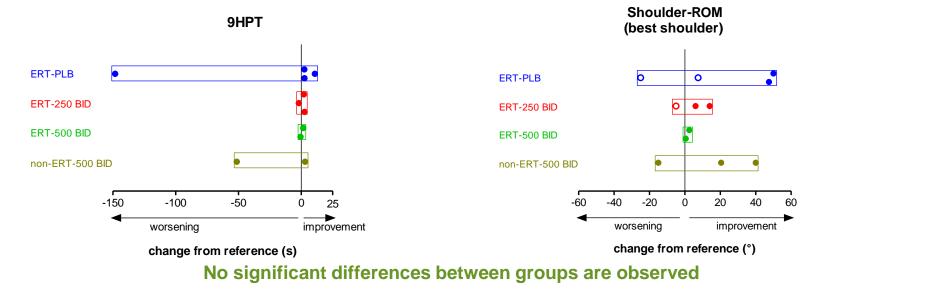
Pure tone audiometry (PTA)



Efficacy: trends of improvement on 6MWT and FVC







Efficacy: several patients treated by ERT and odiparcil demonstrated improvements in one or several parameters

Treatment (N=10)	Respiratory (FVC)	Ophthalmology (COM left eye, right eye)	Cardiology
		1	1
Discobe - EDT		(slightly improved)	(slightly improved)
Placebo + ERT (N=4)	0	Patient A : +4, +11	-
(14-1)		-	Patient B: ↓ 30% LVMI
	3	2	4
	(slightly improved)	(improved)	(3 slightly improved + 1 improved)
	250mg bid	250mg bid	250mg bid
	Patient C: + 5%	-	Patient C: ↓ 17% LVMI
Odiparcil + ERT	-	Patient D: +11, +14	Patient D: no longer mitral regurgitation
(N=6)	500mg bid Patient E: + 4%	500mg bid -	500mg bid -
	Patient F: +9%	Patient F : +13 ⁽¹⁾	Patient F: ↓ severity mitral regurgitation
	-	-	Patient G: ↓ 14.5% LVMI, ↓ severity aortic regurgitation, ↓ CIMT both carotide

⁽¹⁾ Corneal transplant of the other eye; LVMI: left ventricular mass index (echocardiogram); CIMT: carotida intima media thickness

Efficacy: signals of efficacy were also detected in patients only treated with odiparcil

Odiparcil 500mg Bid (N=3)	Respiratory (FVC)	Ophthalmology	Cardiology	Range of Motion	Other
Patient H	Improved FVC by +18%	NA	Stable	Improved range of motion on both shoulders (+17,8%/+21,0%)	Pain improved
Patient I	Stable	Stable	Slightly Worsened	Improved range of motion on both shoulders (+8,1%/+8,5%)	Pain improved
Patient JSevere patient hospitalizedPoor compliance	NA	Stable	Worsening	Worsening	Pain improved

Odiparcil: clinical development path for approval in MPS VI

Non-interventional **Biomarker Study**

MPS VI patients (7y to adult)

- Add on to ERT, n=12

Non-interventional **Biomarker Study**

MPS VI patients (7y to adult) - Add on to ERT, n=12

BM6 and BM6Ext

- BM (leukoGAG) BM6
- BM (leukoGAG & skinGAG) BM6Ext

Phase IIa (6-m treatment) MPS VI adults (16y+)

- Add on to ERT, n=15,
 - Not receiving ERT, n=5

#IMProveS

- Safety
- PK, PD (uGAG) and BM (leukoGAG, skinGAG)
- Exploratory assessment of efficacy

Phase Ib/II (6-m treatment) MPS VI children (5y to 15y) - Add on to ERT

Safe-KIDDS

- Safety
- PK with *pediatric formulation*
- PD (uGAG, anti-IIa) and BM (leukoGAG, skinGAG)
- Exploratory assessment of efficacy

BM: Biomarkers

- leukoGAG: levels of GAGs in leukocytes
- skinGAG: levels of GAGs in skin

PD: Pharmacodynamics

- uGAG: urinary GAG
- anti-Ila: anti-thrombin Ila activity

Phase III MPS VI patients (5y to adult)

Safety

Efficacy



Inventiva Pharma to present and host a Satellite Session at the 16th international Symposium on MPS and Related Disease (Barcelona, July 31, 2020 – August 2, 2020)

The presentation of the iMProveS results, upon organizer's invitation, will be given by Pr. Nathalie Guffon (Centre de Référence des Maladies Héréditaires du Métabolisme, HCL, Lyon, France) on Saturday, August 1st, 2020 at 4:20 PM.

The satellite session "Remaining Unmet Needs in MPS VI", sponsored by Inventiva, will take place on Sunday, August 2, 2020 at 7:30 AM.





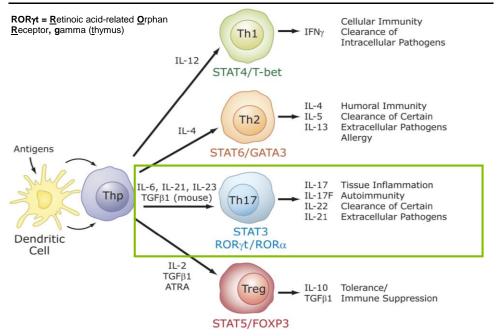
Collaboration with AbbVie: ABBV-157

abbvie

ABBV-157, a clinical compound co-discovered by Inventiva, has block-buster potential in several auto-immune diseases



ROR_γ is a master regulator of Th17 differentiation and IL-17 expression



IL-17 / 23 approach has been validated by several successful biologics

Brand Name	Company	Target	Sales (2019, B\$) ⁽¹⁾
Stelara	Janssen	IL-12 and IL-23	6,3
Cosentyx	Novartis	IL-17A	3,5
Taltz	Eli Lilly	IL-17A	1,4

- Target Product Profile: Humira in a pill + oral + better safety
- ABBV-157, a potent RORγ, addresses large markets dominated by biologics: psoriasis, rheumatoid arthritis, multiple sclerosis, IBD, uveitis, ...

ABBV-157 POC expected in 2020

- Single ascending dose and multiple ascending dose studies in healthy volunteers completed
- **Second clinical study initiated**: a randomized, double-blind, placebo-controlled, multiple-dose study to evaluate the pharmacokinetics, safety and tolerability of ABBV-157 in 60 healthy volunteers and patients with chronic plaque psoriasis (clinicaltrials.gov identifier: NCT03922607)
 - Study start date: June 2019 / Study completion: October 2020⁽²⁾

Inventiva eligible to milestone payments and sales royalties

Financials

Key financials and shareholder base

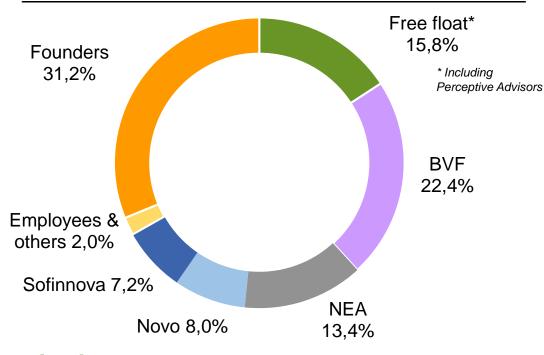
Key financials





ISIN code	FR0013233012
Market	Euronext Paris
Shares outstanding	30.687.750
Market cap (March 9, 2020)	€95m
Cash position (Dec. 31, 2019)	€35.8m compared to €56.7m as of December 31, 2018 Runway until end of Q2 2021
Revenues in 2019 (Dec. 31, 2019)	€7m compared to €3.2m in 2018
R&D expenditures in 2019 (Dec. 31, 2019)	€33.8m compared to €31.6m 2018

A strong and diversified shareholder base



Analyst coverage

HC Wainwright	Ed Arce	
LifeSci Capital	Patrick Dolezal	
Jefferies	Peter Welford	
KBC	Lenny Van Steenhuyse	
Société Générale	Delphine Le Louët	
Gilbert Dupont	Jamila El Bougrini	

Full year 2019: a solid financial position with an extended cash runway

Income Statement				
Key figures (in thousands of euro, except share and per share amounts)	2019	2018		
Revenue	6,998	3,197		
Other income	4,293	4,853		
Research and development expenses	(33,791)	(31,638)		
Marketing – business development expenses	(249)	(225)		
General and administrative expenses	(6,088)	(6,045)		
Other operating income (expenses)	(1,475)	(3,395)		
Operating profit (loss)	(30,312)	(33,253)		
Financial income	175	142		
Financial expenses	(81)	(253)		
Net financial income (loss)	93	(111)		
Income tax	-	(253)		
Net loss for the period	(30,218)	(33,617)		

Cash Position			
Key figures (in thousands of euros)	December 31, 2019	December 31, 2018	
Cash & cash equivalents	35,840	56,692	

Highlights

- ▶ 2019 revenues more than doubled at €7.0m, compared to €3.2m in 2018, including a €3.5m milestone payment from **AbbVie**
- > 7% increase in R&D investment, €33.8m vs €31.6m in 2018
 - Continued efforts dedicated to the development of lanifibranor (NASH) and odiparcil (MPS)
 - R&D expenses stable at 84% of total operating expenses more than 2/3^d dedicated to clinical development
- Cash position at €35.8m vs €56.7m as of 12.31.2018 (cash) runway until end of Q2 2021 considering the €15.0m gross proceeds raised on February 11, 2020)
 - Net operating cash flow at €28.4m vs €34.2m in 2018, reflecting positive cash inflows (€3.5m AbbVie milestone, €3.6m 2017 R&D tax credit), partly offset by increased R&D efforts: to be noted: €4.2m 2018 R&D tax credit received in January 2020
 - Reminder: €32.5m and €8.6m private placements in Q2 2018 and H2 2019 (net proceeds) respectively

Financial Calendar

May 14, 2020: Publication of Q1 2020 financial results (revenues and cash) (after market closing)

Near-term catalysts

Recent and upcoming key milestones

Lanifibranor

► Headline results: Phase IIb NATIVE clinical study in NASH - H1 2020

Odiparcil

- ☑ Positive results of the Phase IIa iMProveS clinical study in MPS VI
- Launch of Phase I/II SAFE-KIDDs clinical study (pediatric study) in MPS VI by the end of 2020

ABBV-157

abbyie

- ✓ ABBV-157 milestone payment received for the inclusion of the first psoriasis patient in the ongoing clinical study: €3.5m in Q4 2019
- ► ABBV-157 clinical POC H2 2020

Q&A

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