



**Novel Biology.  
Powerful Medicines.  
Transformative Impact.**

**NGM Biopharmaceuticals, Inc.**

Corporate Overview  
September 2020

**NASDAQ: NGM**



# Safe Harbor Statement

This presentation contains forward-looking statements, including, but not limited to, statements regarding potential indications for, and planned development of, product candidates in NGM's pipeline, including aldafermin and NGM621; the planned timing of initiation, enrollment and results of NGM's clinical trials; the potential activity, complementarity, safety, tolerability and efficacy of NGM's product candidates, including aldafermin and NGM621; the potential differentiation of, and benefits of extended treatment with, aldafermin; the potential for every eight-week dosing with NGM621; the potential for the NGM621 CATALINA trial to be Phase 3-enabling; NGM's option to participate in the economic return of any programs licensed by our collaborator, Merck; NGM's expectation of potential value-driving catalysts and the timing thereof; and any other statements other than statements of historical facts. Because such statements deal with future events and are based on NGM's current plans, objectives, estimates and expectations, they are subject to various significant risks and uncertainties and actual results, performance and achievements and the timing of events could differ materially from those described in or implied by the statements herein. Such risks and uncertainties include, without limitation, those associated with the costly and time-consuming pharmaceutical product development process and the uncertainty of clinical success, including risk related to failures or delays in receiving regulatory clearance for, initiating, enrolling or completing clinical trials; the risk that results obtained in NGM's clinical trials to date may not be indicative of results obtained in ongoing or future trials, including pivotal trials, including the risk that ongoing or future studies show that aldafermin is not a tolerable or effective treatment for NASH patients or NGM621 is not a tolerable or effective treatment for GA; the COVID-19 pandemic, which may significantly impact (i) our business and operations, including activities at our headquarters in the San Francisco Bay Area and our clinical trial sites, as well as the business or operations of our manufacturers, contract research organizations or other third parties with whom we conduct business, (ii) our ability to access capital, (iii) the value of our common stock and (iv) the future decisions of our collaborator; the time-consuming and uncertain regulatory approval process; seeking and maintaining protection of intellectual property; NGM's reliance on third party manufacturers and delays or problems in the manufacture of product candidates; the sufficiency of NGM's cash resources and need for additional capital; and other risks and uncertainties affecting NGM and its research and development programs, including those described under the caption "Risk Factors" and elsewhere in NGM's quarterly report on Form 10-Q for the quarter ended June 30, 2020 and future filings and reports of NGM with the Securities and Exchange Commission. The forward-looking statements contained herein are made only as of the date hereof or as of the dates indicated in the forward-looking statements, even if they are subsequently made available by NGM on its website or otherwise. NGM undertakes no obligation to update or supplement any forward-looking statements after the date hereof, or to update the reasons why actual results may differ or differ materially from those anticipated in the forward-looking statements.

# Company Highlights



## Aldafermin (NGM282)

Wholly-owned;  
In Phase 2b for  
treatment of **NASH**

## NGM313 (MK-3655)

Insulin sensitizer  
for treatment of  
**NASH** and T2D;  
**Licensed by Merck**



## NGM621 in Phase 2 for treatment of **GA**

**Two other product  
candidates** in Phase  
1 for treatment of  
**cancer and  
metabolic disease**



Strategic  
collaboration with  
Merck –  
**up to \$75M/yr. R&D  
support<sup>1</sup>**  
and **NGM option  
on future Merck  
late-stage programs**



Experienced team  
with highly  
productive R&D  
engine generating  
on average  
**~1 development  
candidate/year**



Multiple **key  
milestones** and  
potential **value-  
driving catalysts**  
expected in the next  
12-18 months

<sup>1</sup> Merck has committed to provide R&D reimbursement of up to \$50 million per year. If our R&D expenses exceed \$50 million in a given year, Merck can either reimburse up to an additional \$25 million for use in funding IND-enabling or later-staged activities or provide us with the equivalent value in in-kind services for such activities.

NASH: non-alcoholic steatohepatitis

T2D: type 2 diabetes

GA: geographic atrophy

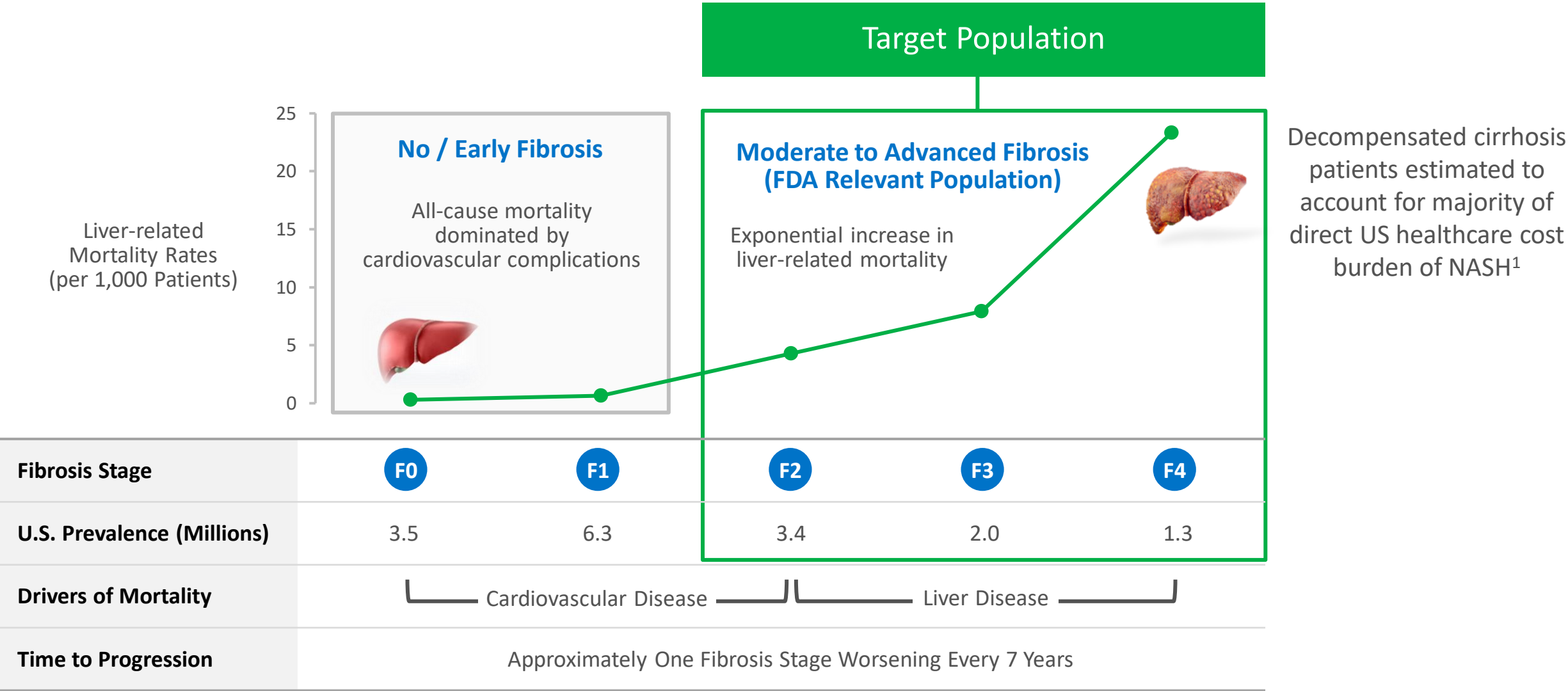
# Our Expansive Pipeline

PRODUCT CANDIDATE	PRODUCT DESCRIPTION (DOSING FREQUENCY)	POTENTIAL INDICATIONS	STAGE OF DEVELOPMENT	WORLDWIDE COMMERCIAL RIGHTS	
<b>Aldafermin (NGM282)</b>	FGF19 Analog (Once Daily)	NASH	Phase 2b	Wholly-Owned	
<b>NGM313 (MK-3655)</b>	FGFR1c/KLB Agonistic Antibody (Once Monthly)	NASH, Type 2 Diabetes	Phase 1b	Licensed	
<b>NGM621</b>	Complement C3 Inhibitory Antibody (Long Acting)	Geographic Atrophy	Phase 2		Option
<b>NGM120</b>	GFRAL Antagonistic Antibody (Long Acting)	Cancer, Cancer Anorexia/Cachexia Syndrome (CACS)	Phase 1a/1b		Option
<b>NGM395</b>	GDF15 Analog (Long Acting)	Metabolic	Phase 1	Wholly-Owned	

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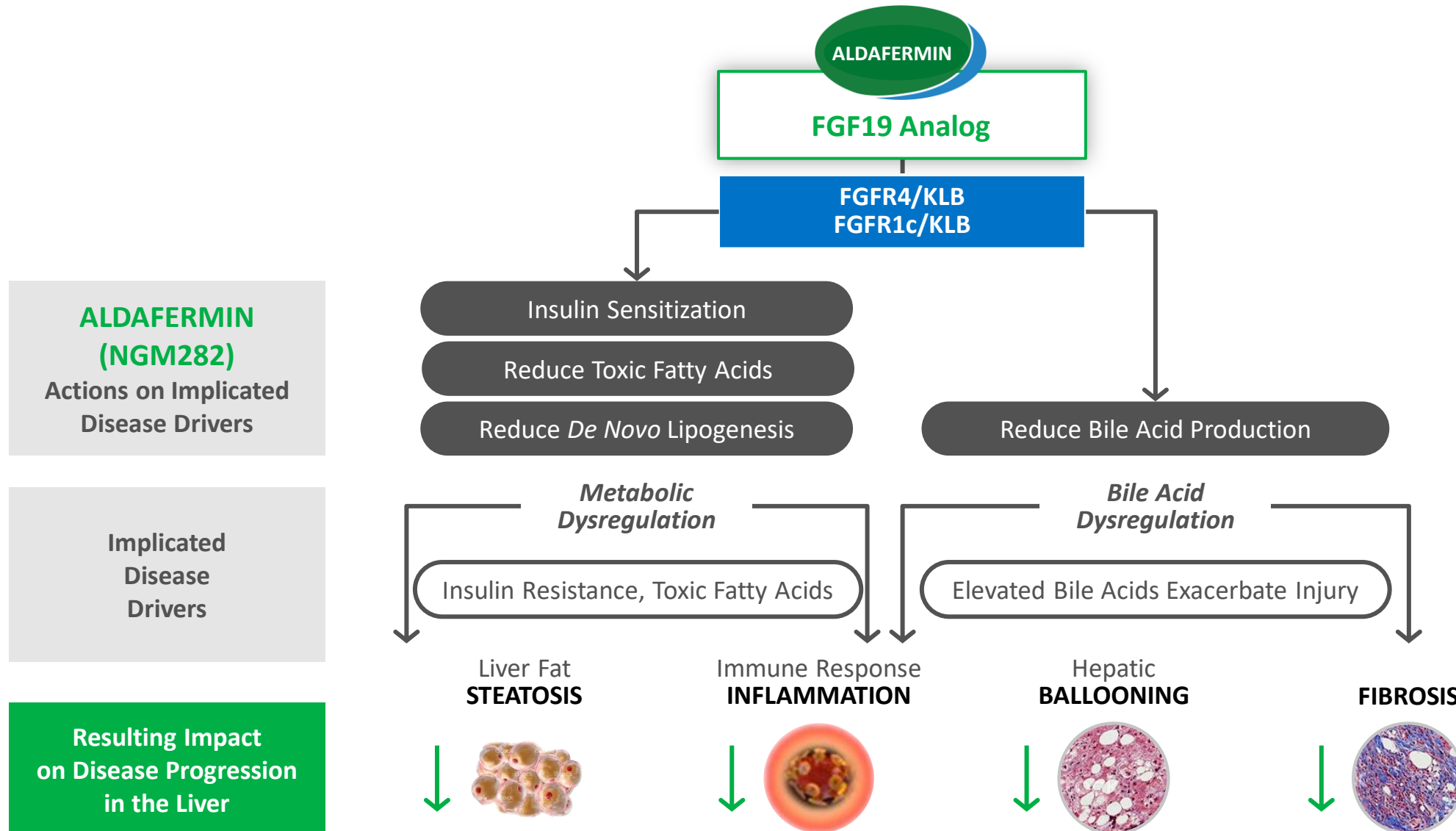
Ongoing Development Programs

# Improving Fibrosis Leads to Better Outcomes for NASH Patients

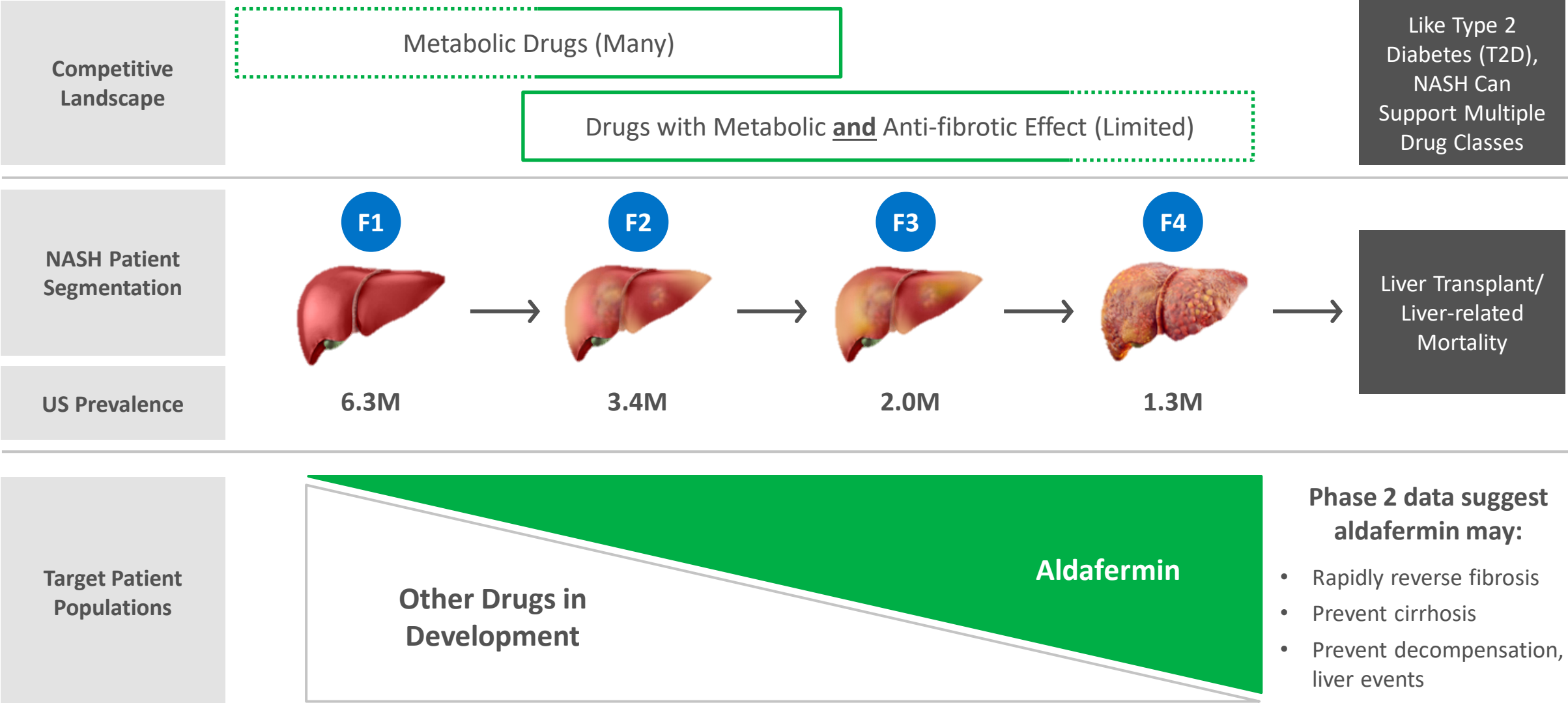




# Aldafermin Impacts the Key Drivers of NASH Pathogenesis




# Unlike Many Other Drugs in Development, Aldafermin Targets Fibrosis Reversal and Cirrhosis Prevention in Advanced NASH Patients



# NASH Phase 2 Program Provides Foundation for Late-Stage Development of Aldafermin



 Clinical Data in Presentation

  
**COHORT 1**

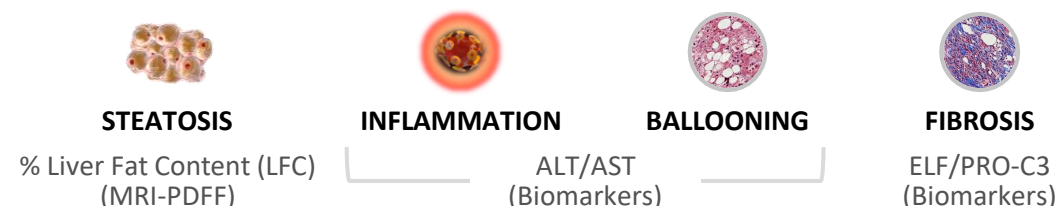
  
**COHORT 2**

  
**COHORT 3**

  
**COHORT 4**

Status	Completed (Published, <i>The Lancet</i> 2018)	Completed (Presented, EASL 2018)	Completed (Presented, AASLD 2018)	<b>Preliminary Topline Results</b> (More details planned for EASL 2020)
Duration	← 12 Weeks →			24 Weeks
Aldafermin Dose (# Patients)	<div>Placebo (27)</div> <div>3 mg (27)</div> <div>6 mg (28)</div>	<div>0.3 mg (23)</div> <div>1 mg (21)</div> <div>3 mg (22)</div>	<div>1 mg (28)</div>	<div>Placebo (25)</div> <div>1 mg (53)</div>

**KEY ENDPOINTS/  
Assessment Measures**

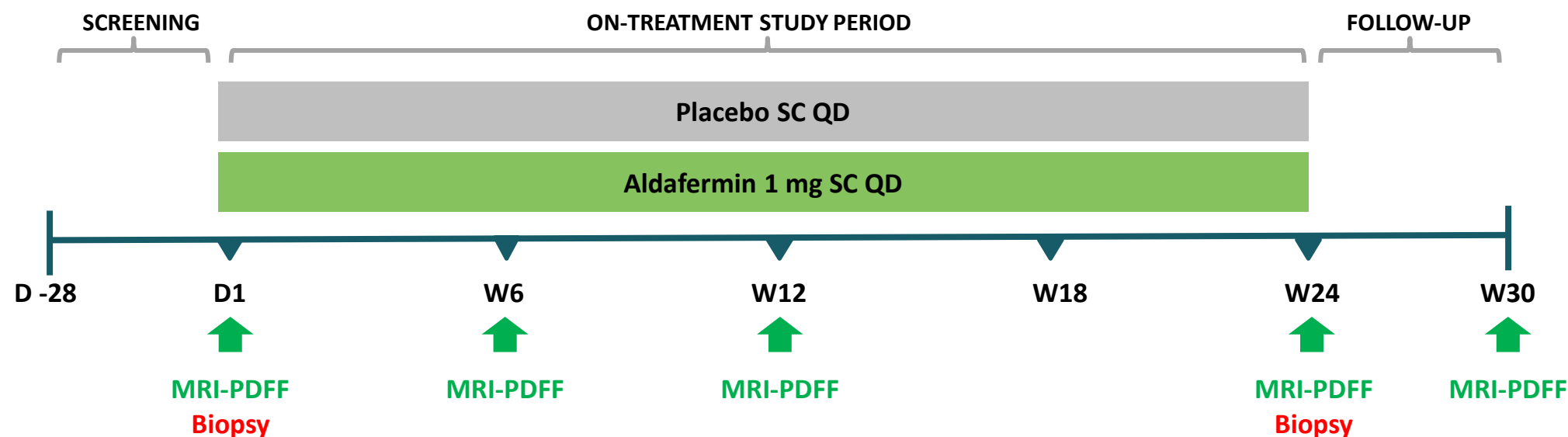


**HISTOLOGY (Biopsy)**

**NON-INVASIVE MEASURES**



# Cohort 4: A 24-Week, Double-Blind, Placebo-Controlled Multi-Center Ph2 Study of Aldafermin in Patients with Biopsy-Proven NASH



Safety population	N=78	Aldafermin : placebo (2:1)
Efficacy population	N=77	At least one dose and valid post-dose efficacy value
Liver histology population	N=72	Valid, non-missing biopsy at baseline and W24

- Key inclusion criteria include:
  - Biopsy-confirmed NASH with NAS  $\geq 4$  (1 point in each component); stage 2 or 3 liver fibrosis (F2 or F3 by NASH CRN criteria)
  - Absolute liver fat content (LFC)  $\geq 8\%$  by MRI-PDFF
  - ALT  $\geq 19$  IU/L in females, ALT  $\geq 30$  IU/L in males
- **Primary endpoint:** change from baseline in absolute LFC (as measured by MRI-PDFF) at W24
- **Secondary and exploratory endpoints** include ALT, AST, biomarkers of fibrosis and effect on liver histology at W24
- Over-encapsulated rosuvastatin (ROS 20 mg) started at W2 if low-density lipoprotein cholesterol (LDL-C) rise of 10 mg/dL observed

# Patient Baseline Demographics and Characteristics (Cohort 4 Efficacy Population)

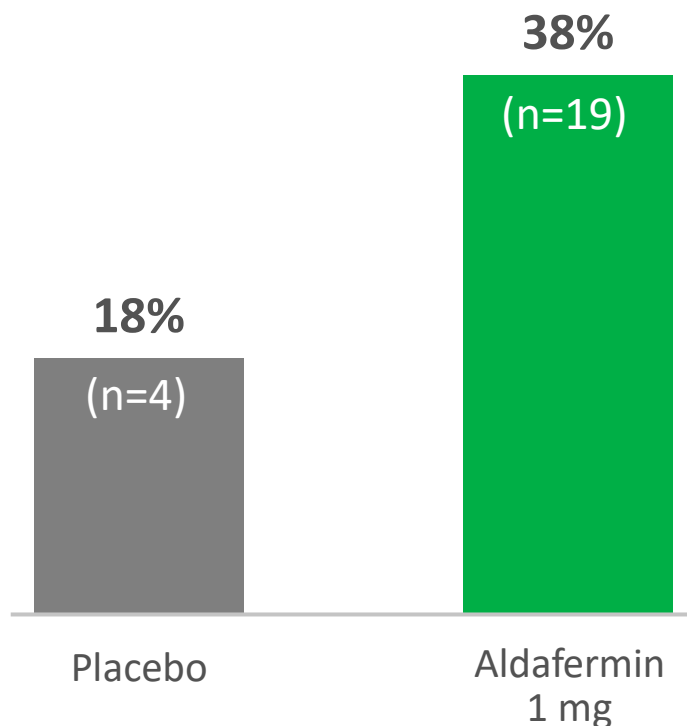


Parameters Mean (SD)	Placebo (n=25)	Aldafermin 1 mg (n=52)
Age (years)	54.1 (9.7)	53.0 (12.1)
Sex (Male/Female)	9 / 16	27 / 25
Weight (kg)	102.5 (29.7)	100.1 (21.0)
BMI (kg/m <sup>2</sup> )	36.8 (9.0)	35.8 (6.4)
Waist (cm)	114.3 (17.0)	111.9 (15.4)
Type 2 Diabetes, n (%)	16 (64%)	31 (60%)
NAFLD Activity Score (NAS)	5.4 (1.1)	5.7 (1.1)
Fibrosis stage (F2 / F3) <sup>1</sup>	13 / 9	27 / 23
Liver Fat Content (% by MRI-PDFF)	18.5 (6.8)	18.0 (5.9)
Alanine aminotransferase, ALT (IU/L)	55.1 (29.6)	73.3 (39.6)
Aspartate aminotransferase, AST (IU/L)	44.3 (23.7)	54.5 (27.4)
HDL-C (mg/dL)	34.5 (16.7)	31.7 (12.5)
LDL-C (mg/dL)	95.0 (31.6)	95.1 (31.0)
Triglycerides (mg/dL)	167.7 (119.2)	194.2 (164.3)
Pro-C3 (ng/mL)	17.1 (7.0)	17.5 (8.4)

# Cohort 4: Rapid and Sustained Improvement in Fibrosis

## Fibrosis Improvement $\geq 1$ Stage with No Worsening of NASH<sup>1</sup> at W24

(% of Patients)



### Biopsy Reads

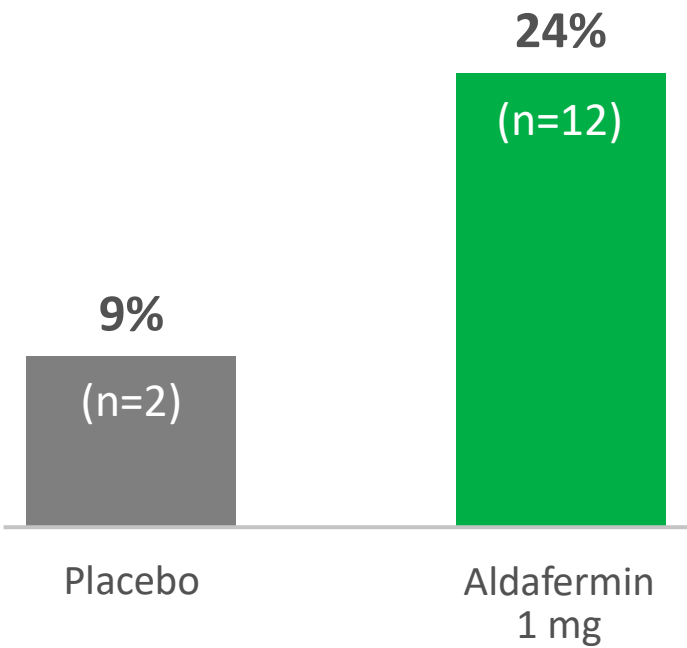
- Both baseline and W24 liver biopsies were centrally read by the same NASH-CRN pathologist
- Baseline biopsies were not re-read at end of study
- All biopsies were read blinded to treatment assignment and patient

Liver Histology Population (n=50 aldafermin vs. n=22 placebo)

<sup>1</sup> Cohort 4 preliminary topline data; Defined as patients who have an improvement in liver fibrosis by  $\geq 1$  stage with no worsening of NASH (no worsening of steatosis, lobular inflammation or hepatocyte ballooning grade) from baseline to W24 (not powered for statistical significance)

# Cohort 4: Additional Benefit in Resolution of NASH

Resolution of NASH without Worsening of Fibrosis<sup>1</sup>  
at W24  
(% of Patients)

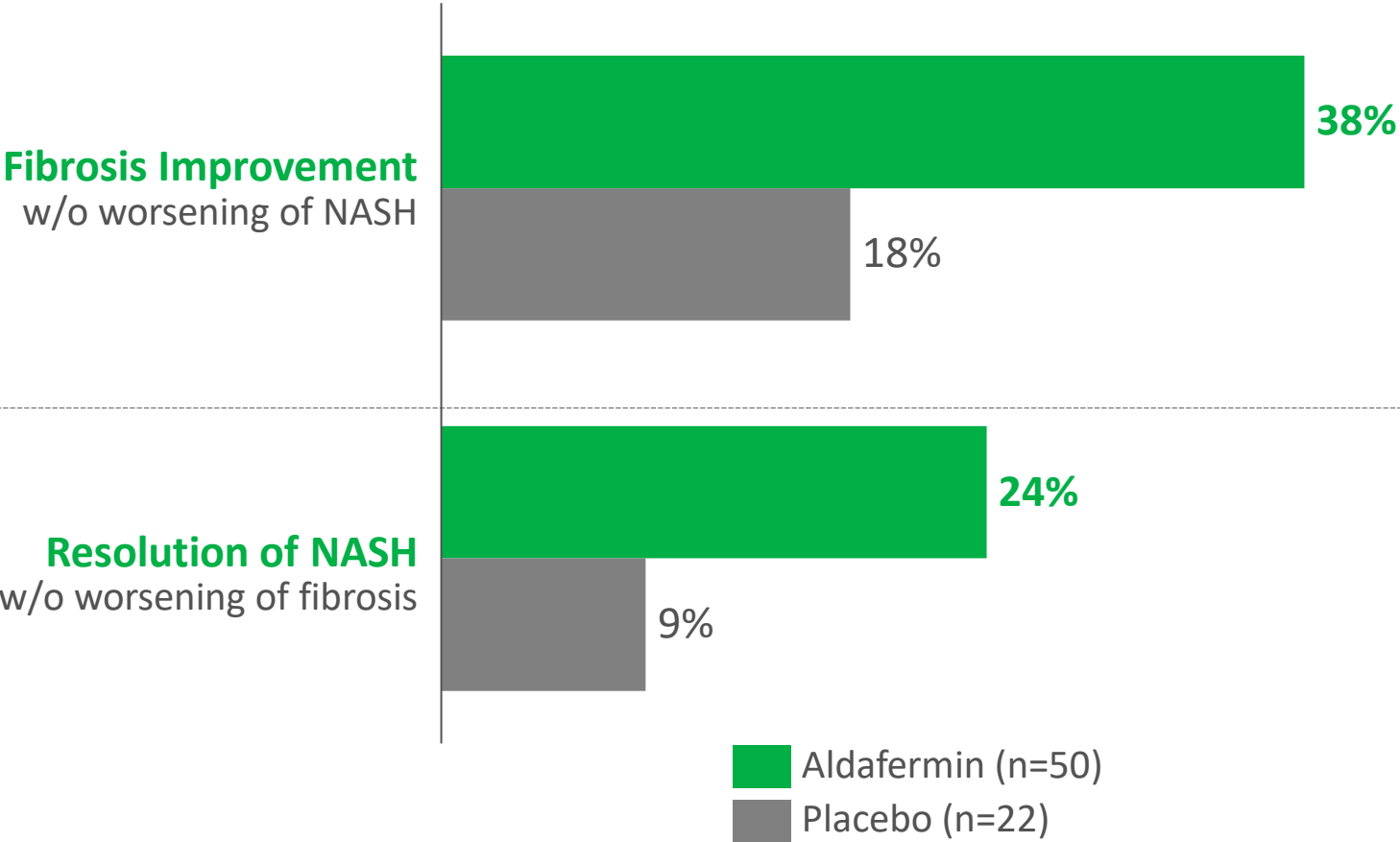


*Liver Histology Population (n=50 aldafermin vs. n=22 placebo)*  
<sup>1</sup> Cohort 4 preliminary topline data; Defined as subjects having a NAS score of 0 or 1 for inflammation and 0 for ballooning, with no worsening of fibrosis (no progression of NASH CRN fibrosis stage) from baseline to W24 (not powered for statistical significance)

# Potential Amplification of Fibrosis Improvement and Resolution of NASH with Longer Treatment Duration



**Cohort 4 (W24)**  
1 mg aldafermin vs. placebo



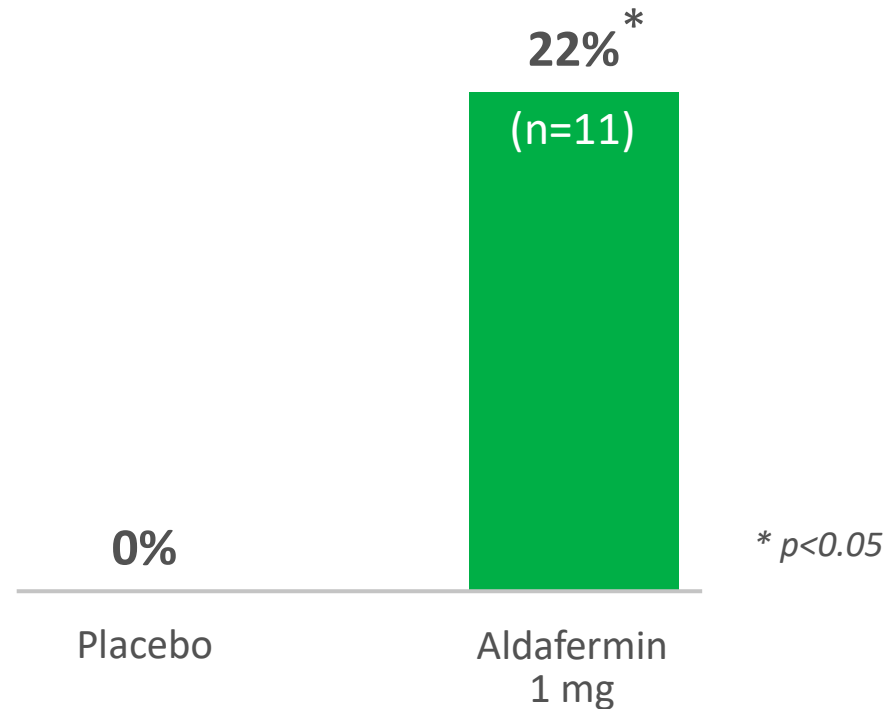
Cohort 3 (W12) 1 mg aldafermin	Cohort 2 (W12) 3 mg aldafermin
25%	42%
--	--
13%	11%
--	--

# Cohort 4: Statistically Significant Proportion of Patients Achieved Both Fibrosis Improvement AND Resolution of NASH



## Composite Endpoint of Fibrosis Improvement AND Resolution of NASH<sup>1</sup> at W24

(% of Patients)



Liver Histology Population (n=50 aldafermin vs. n=22 placebo)

<sup>1</sup> Cohort 4 preliminary topline data; Defined as patients who have an improvement in liver fibrosis by  $\geq 1$  stage with no worsening in NASH AND have a NAS score of 0 or 1 for inflammation and 0 for ballooning without worsening of fibrosis at W24 (not powered for statistical significance)

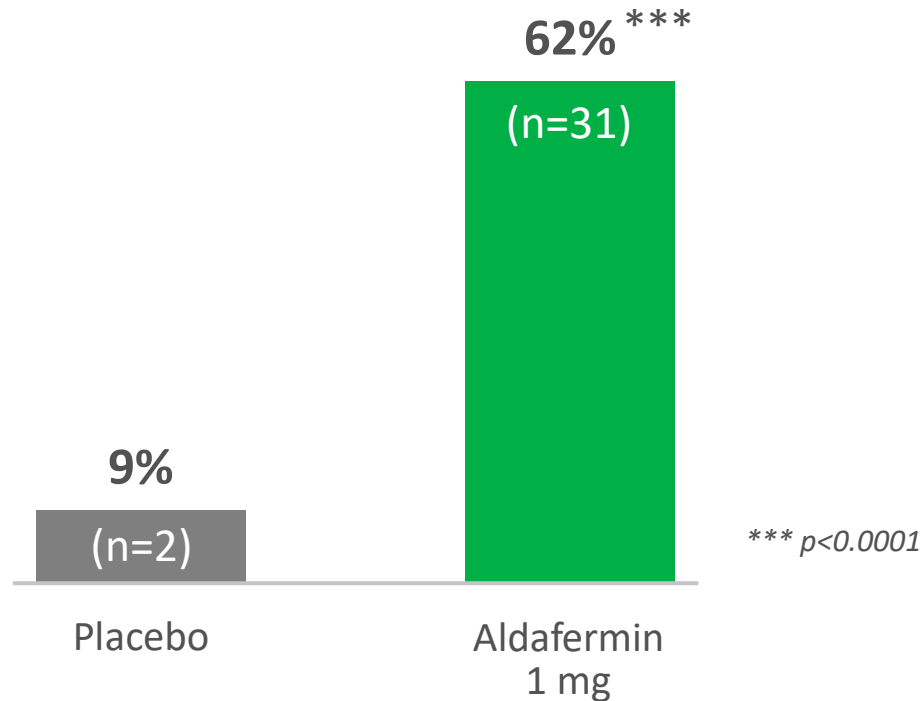


# Cohort 4: Statistically Significant Proportion of Patients Achieved NAS Reduction of $\geq 2$ Points



## Improvement of NAS by $\geq 2$ Points without Worsening of Fibrosis<sup>1</sup> at W24

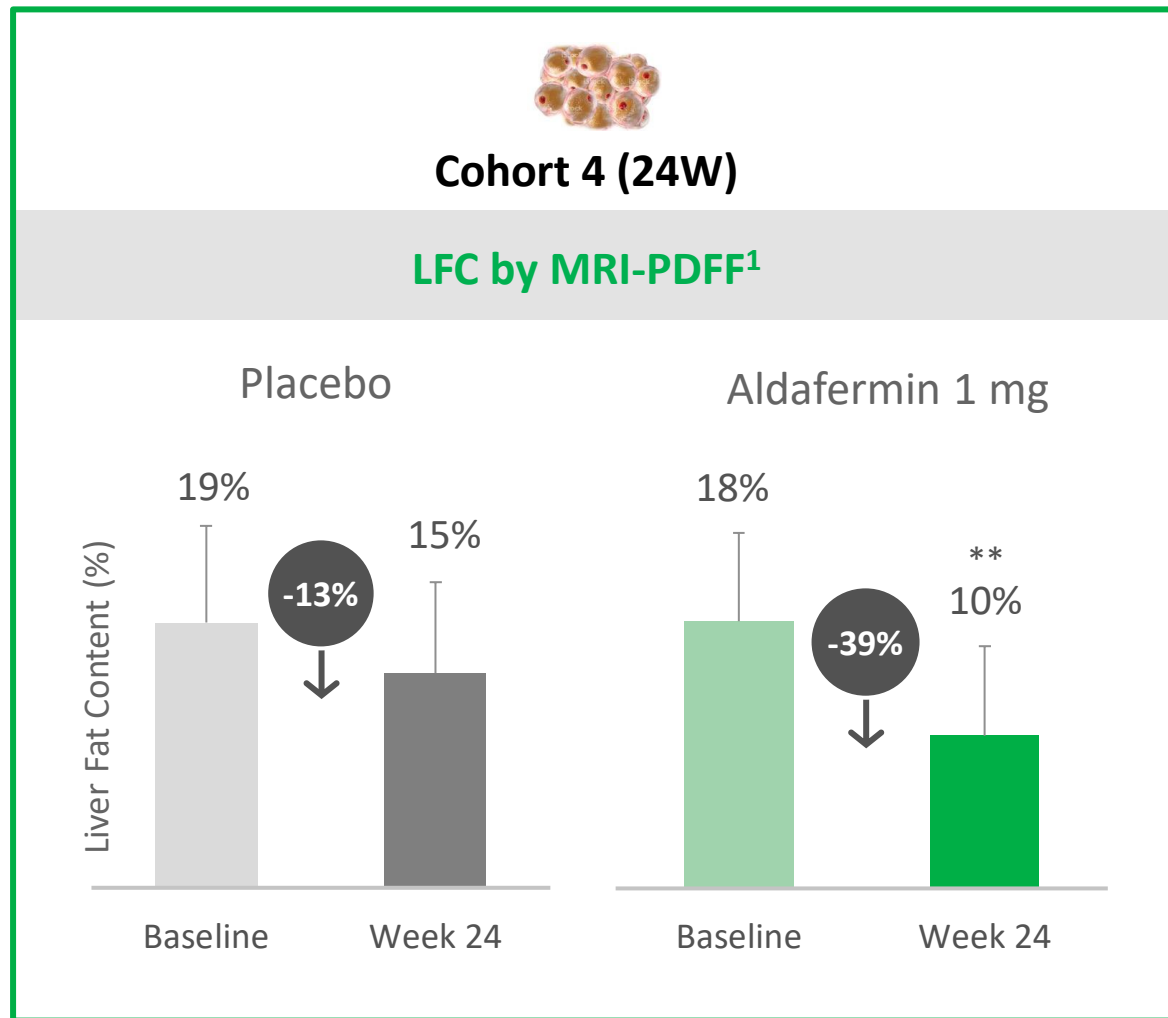
(% of Patients)



### Statistically significant improvements in each NAS component of:

- Steatosis
- Lobular Inflammation
- Ballooning

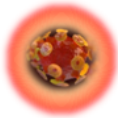
# Cohort 4 Primary Endpoint Met: Statistically Significant Reduction in Absolute Liver Fat Content (LFC)



- 68% of aldafermin patients achieved  $\geq 5\%$  absolute LFC reduction vs. 24% placebo
- 66% of aldafermin patients achieved  $\geq 30\%$  relative LFC reduction vs. 29% placebo
- Consistent response on LFC across Cohorts 1-4

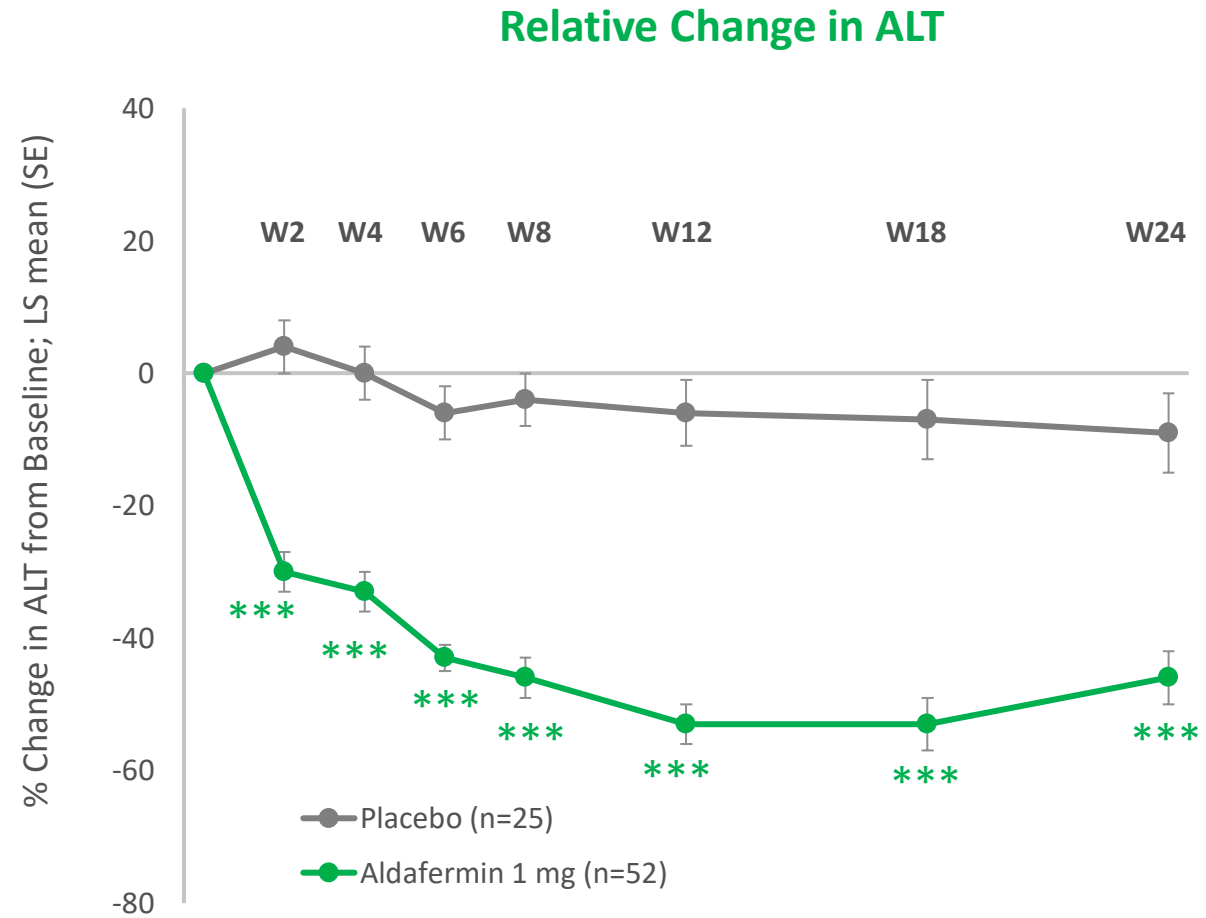
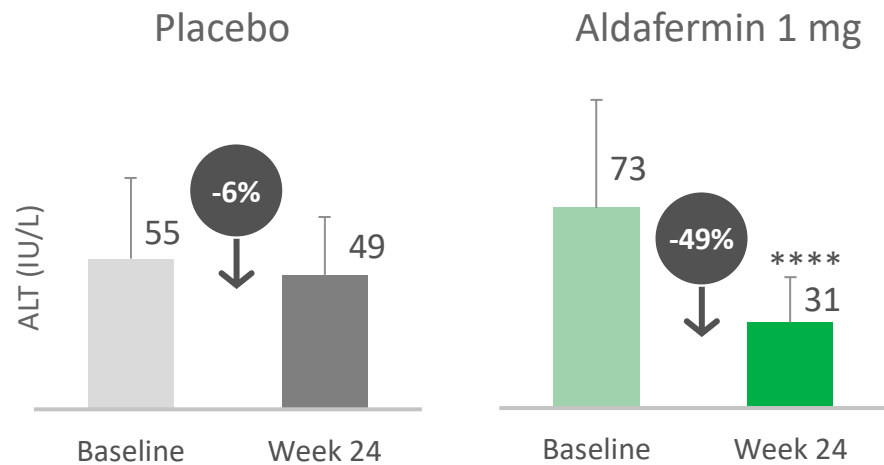
\*\*P<0.01 vs. placebo

# Cohort 4: Rapid and Sustained Decrease in ALT to Near Normal Levels with Aldafermin



## Cohort 4 (24W)

ALT (IU/L)<sup>1</sup>

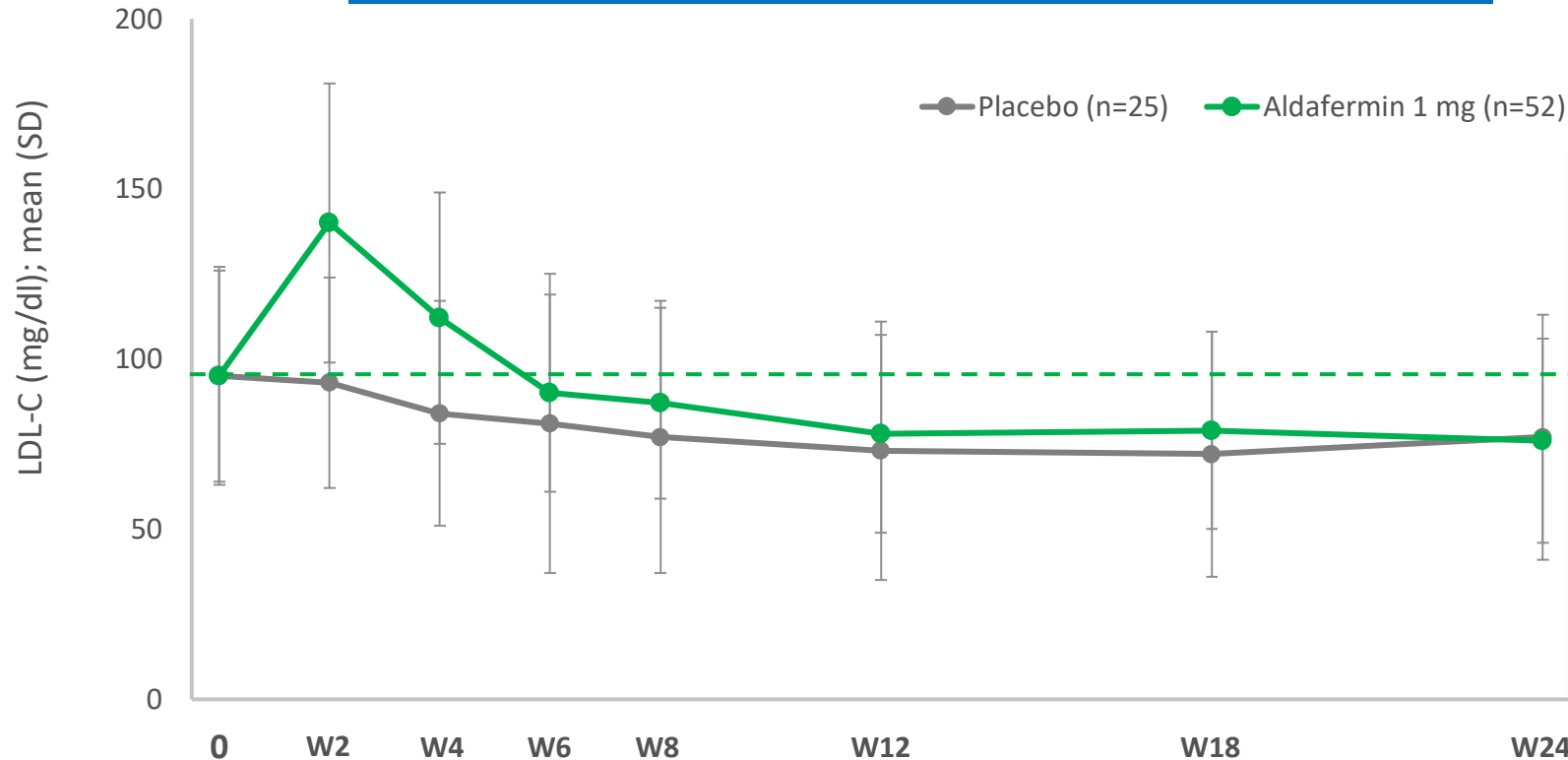


Statistically significant reductions vs. placebo also observed with AST and PRO-C3

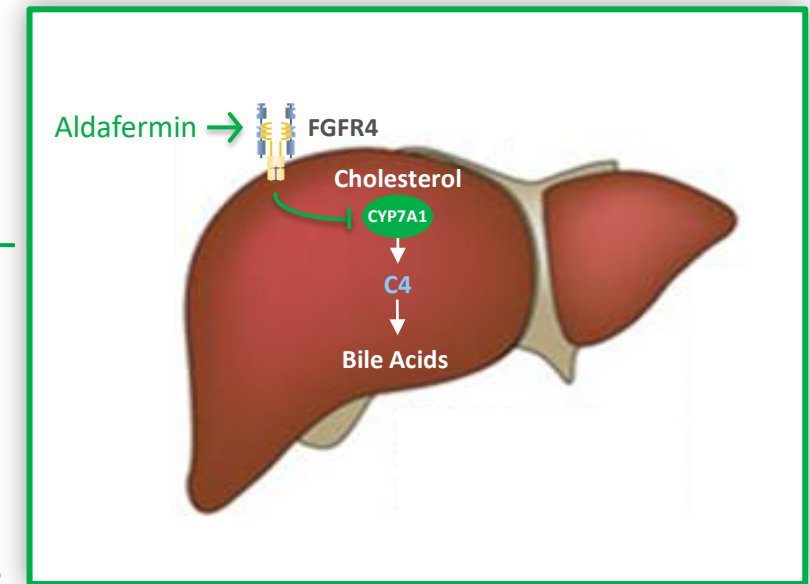
\*\*\*\*P<0.0001, \*\*\*P<0.001 vs. placebo

# Cohort 4: LDL-C Changes Effectively Managed with Statin Therapy

Add Rosuvastatin to Placebo or Aldafermin as Needed  
(If Needed, Titration at W2, W4, W8)



LDL-C elevation is a direct effect of FGF19's inhibition of the classical bile acid synthesis pathway



- Mean LDL-C levels returned to ~77 mg/dL for both placebo and aldafermin arms
- Statistically significant reduction in triglycerides observed as early at W2 and sustained through W24

# Cohort 4: Aldafermin Generally Well Tolerated and Most Common Adverse Events Comparable to Placebo



TEAE Classification	Placebo (N=25)	Aldafermin 1 mg (N=53)
Any TEAE	22 (88.0%)	46 (86.8%)
TEAE Leading to Drug Withdrawal	1 (4.0%)	0
Serious Adverse Event (SAE) <sup>1</sup>	3 (12.0%)	2 (3.8%)
Drug-Related TEAE	11 (44.0%)	27 (50.9%)
TEAE Leading to Death	0	0

All SAEs were deemed to be not related to treatment by site investigator

Most Common (>10%) Adverse Events	Placebo (N=25)	Aldafermin 1 mg (N=53)
Diarrhea	6 (24.0%)	15 (28.3%)
Headache	9 (36.0%)	7 (13.2%)
Abdominal Distension	3 (12.0%)	7 (13.2%)
Nausea	6 (24.0%)	5 (9.4%)
Fatigue	4 (16%)	3 (5.7%)
Diabetes Mellitus	5 (20.0%)	2 (3.8%)
Peripheral Edema	3 (12.0%)	2 (3.8%)

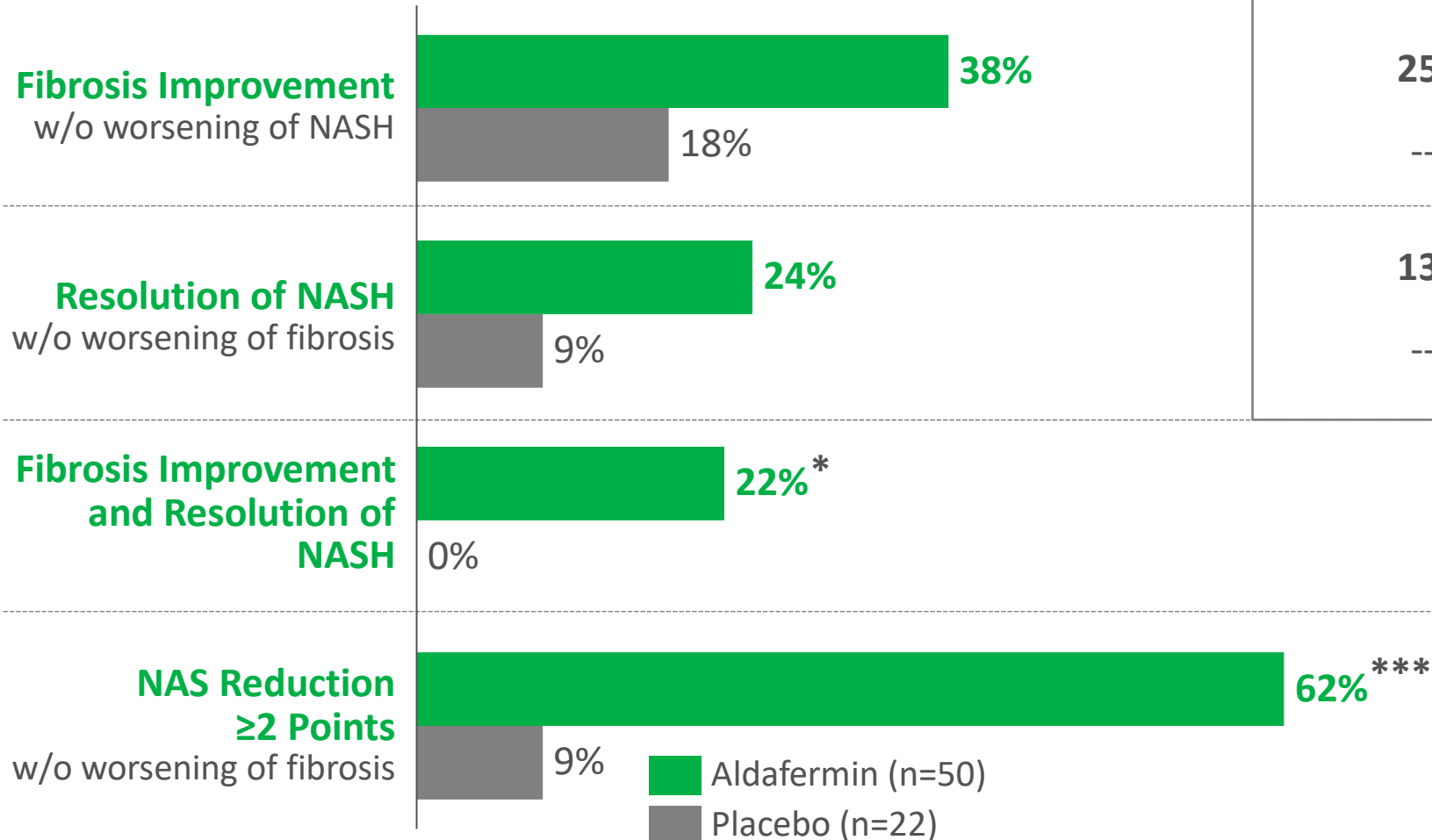
# Phase 2 Data Supports Aldafermin's Potential as Differentiated Monotherapy for Treatment of NASH with Established Fibrosis



**Cohort 4 (W24)**  
1 mg aldafermin vs. placebo

**Cohort 3 (W12)**  
1 mg aldafermin

**Cohort 2 (W12)**  
3 mg aldafermin



25%

42%

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13%

11%

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\*\*\*  $p < 0.0001$

\*  $p < 0.05$

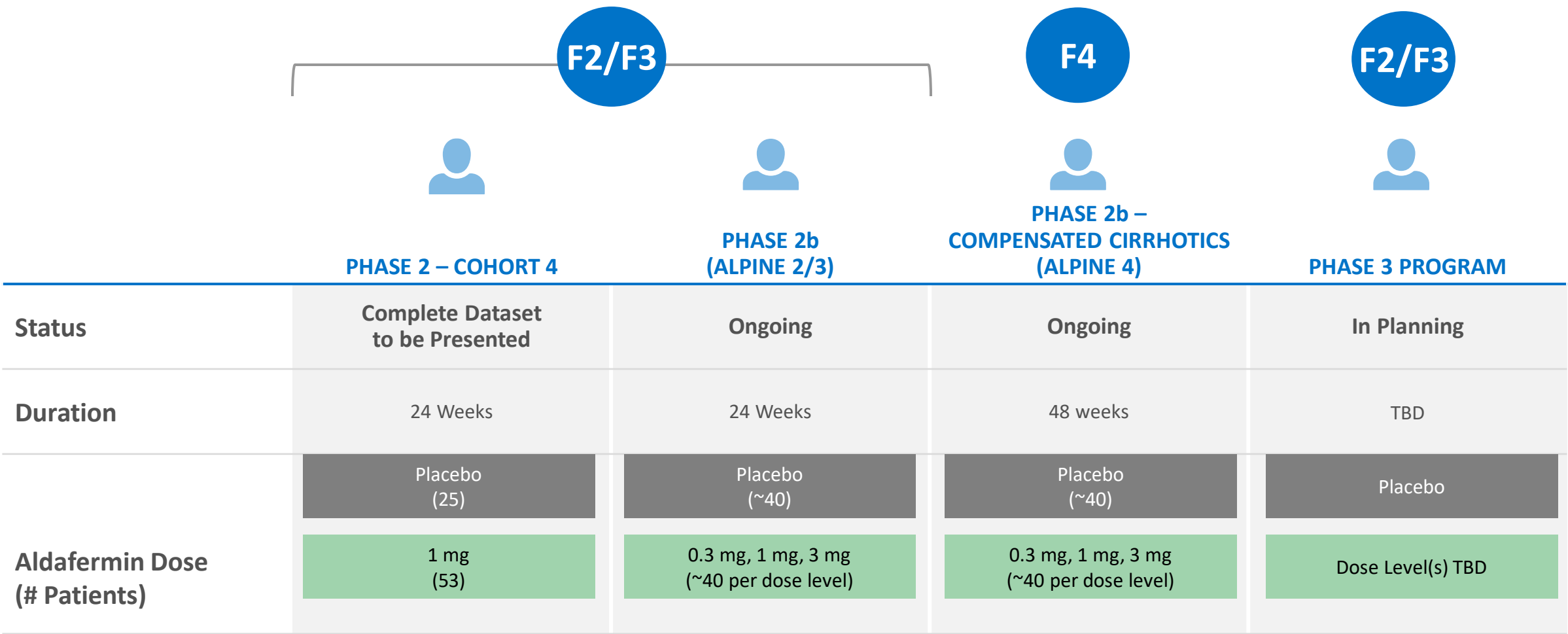


# Summary of Aldafermin Cohort 4 Preliminary Topline Results



- **Meaningful improvements in histology regulatory endpoints:** fibrosis improvement, resolution of NASH and the composite endpoint requiring achievement of both
- Aldafermin's differentiated **rapid dual anti-fibrotic and metabolic effect** is evidenced by the significant improvements observed as early as two weeks
- Cohort 4 data suggest that the histological effects we observed at 12 weeks are **sustained and potentially amplified with extended treatment**
- **Favorable tolerability profile:** most common adverse events occurred with similar frequency in placebo and aldafermin arms

# Aldafermin Development Plan



PHASE 2 – COHORT 4

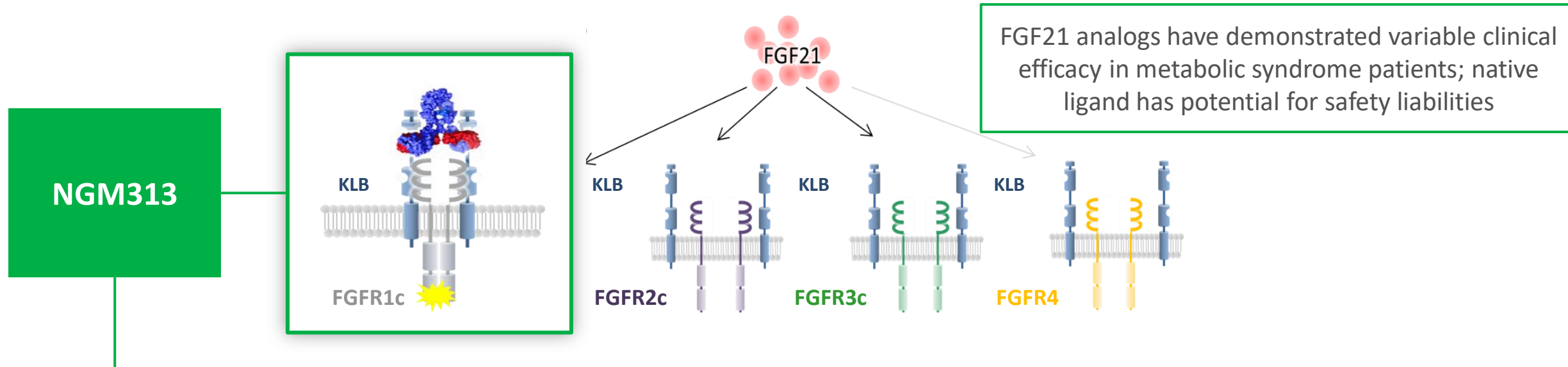
PHASE 2b (ALPINE 2/3)

PHASE 2b – COMPENSATED CIRRHOTICS (ALPINE 4)

PHASE 3 PROGRAM

Status	Complete Dataset to be Presented	Ongoing	Ongoing	In Planning
Duration	24 Weeks	24 Weeks	48 weeks	TBD
Aldafermin Dose (# Patients)	Placebo (25)	Placebo (~40)	Placebo (~40)	Placebo
	1 mg (53)	0.3 mg, 1 mg, 3 mg (~40 per dose level)	0.3 mg, 1 mg, 3 mg (~40 per dose level)	Dose Level(s) TBD

# NGM313 (MK-3655) for the Treatment of NASH and Type 2 Diabetes



- Agonistic antibody that selectively activates FGFR1c / KLB to regulate energy metabolism
- Potential to be once-monthly injectable insulin sensitizer for treatment of NASH and T2D
- Completed Phase 1 SAD/MAD study in obese, insulin resistant subjects and Phase 1b study in subjects with NAFLD
- Single dose of NGM313 resulted in **significant reductions in liver fat content and improvement in metabolic markers** based on preliminary data from a Phase 1b study in obese, insulin resistant subjects with NAFLD **after five weeks**
- Well-tolerated across Phase 1 and Phase 1b studies
- **Merck exercised its option and licensed NGM313 and other FGFR1c/KLB agonists in 4Q18**

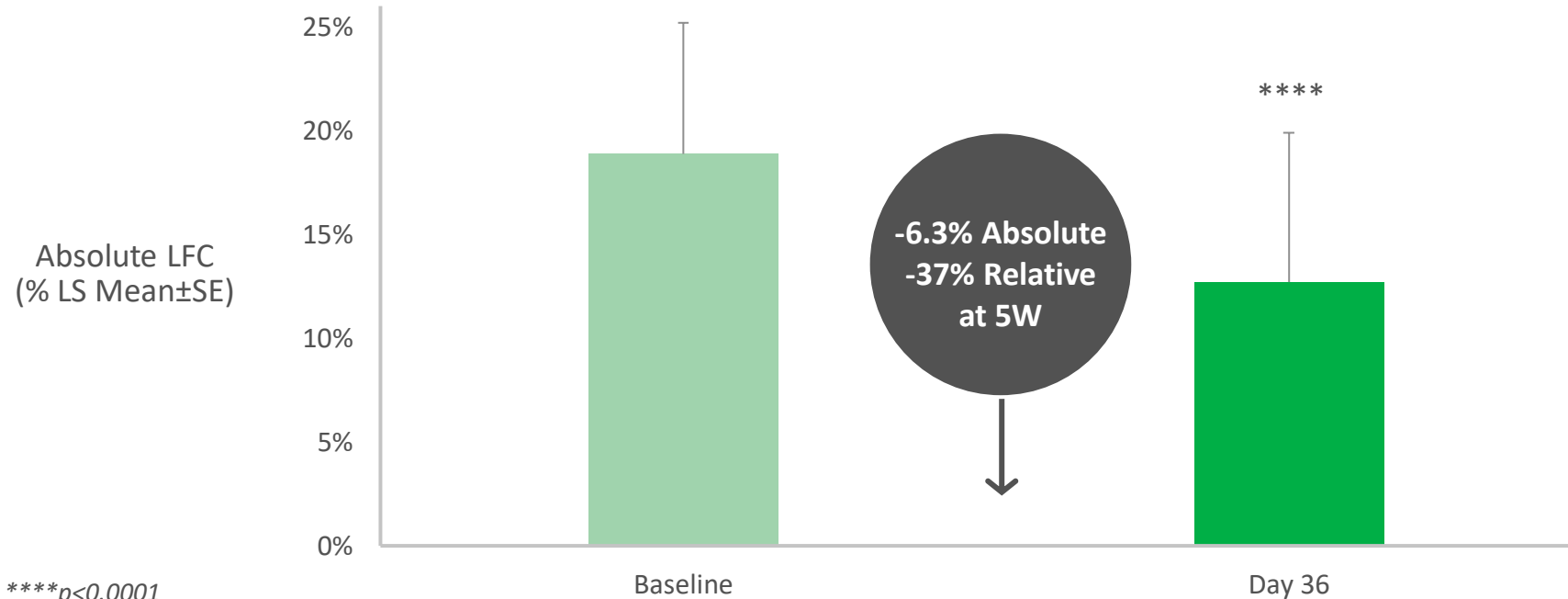
# Significant Reduction in LFC After 5 Weeks Following Single Dose of NGM313 (MK-3655)



## Phase 1b Study in Obese, Insulin Resistant Subjects with NAFLD



**Absolute LFC**  
MRI-PDFF



### Pioglitazone 45 mg (Positive Control)

- 4.0% absolute  
(25% relative) LFC  
reduction at 5W

### NGM313

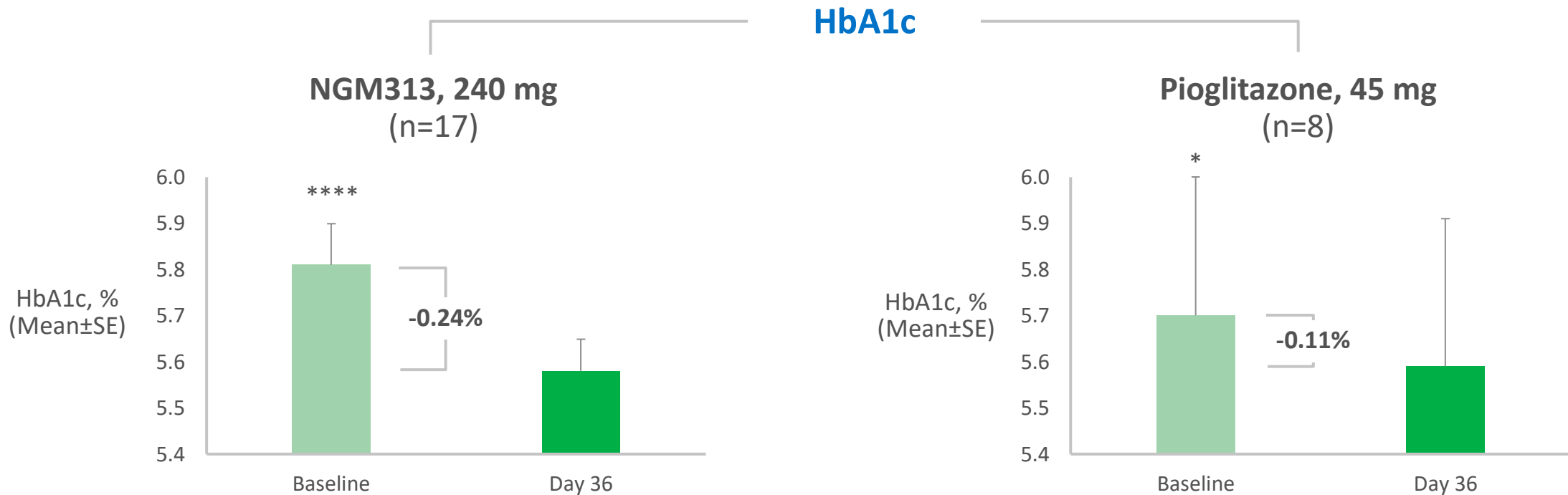
#### Statistically Significant Improvements In:

- ALT and AST
- Triglycerides
- HDL-C, LDL-C
- PRO-C3

# Rapid Reduction in HbA1c Without Hypoglycemia After Single Dose of NGM313 (MK-3655)



## Phase 1b Study in Obese, Insulin Resistant Subjects with NAFLD

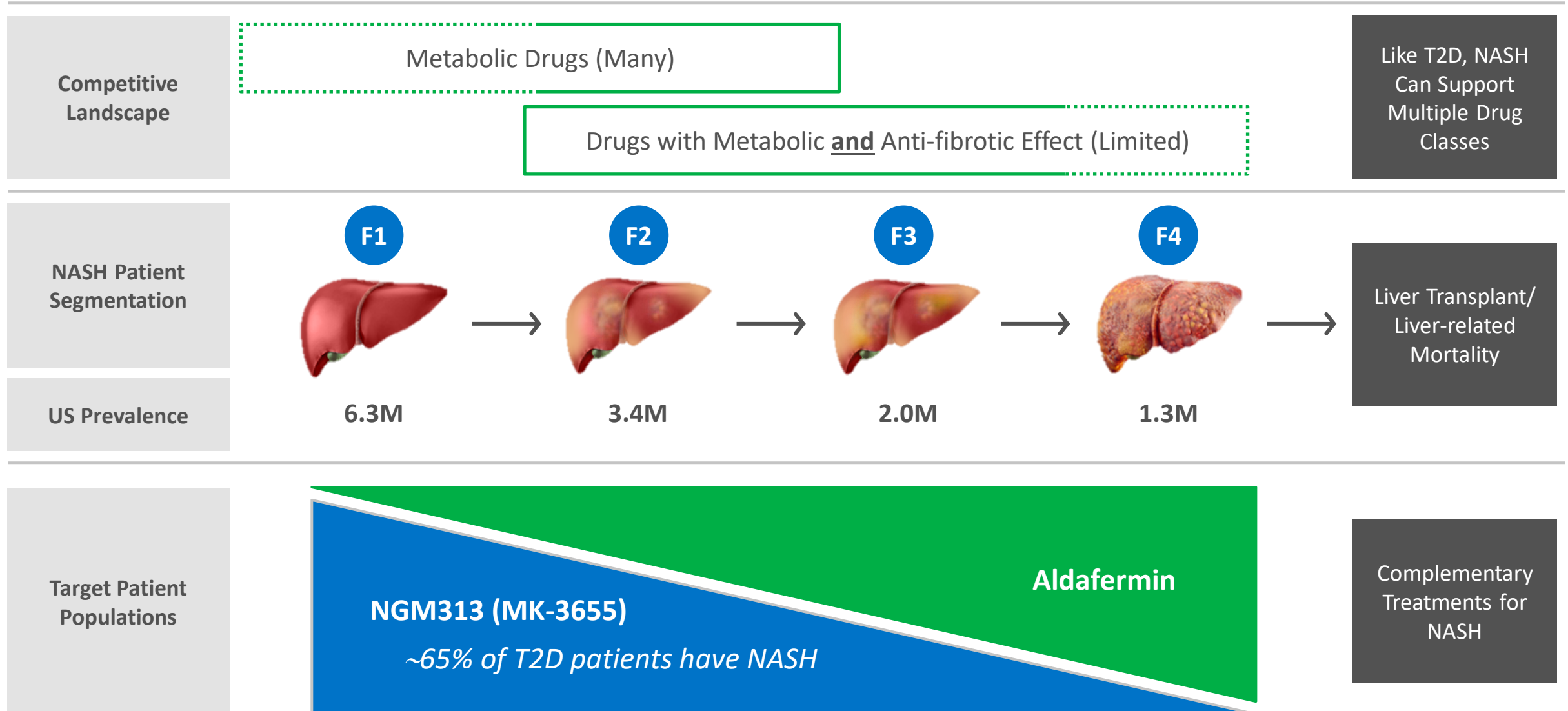


Reduction in HbA1c observed in insulin-resistant, non-diabetic patients supports promise of NGM313 to potentially improve glucose control in patients with T2D

NGM313 increases body weight by 1.6 kg (no edema or fluid retention) vs. 2.4 kg increase with pioglitazone at day 36

\*  $p < 0.05$ ; \*\*\*\*  $p < 0.0001$

# NGM313 (MK-3655) has Potential to Complement Aldafermin by Targeting NASH Population with T2D





# Beyond NASH, an Expansive Pipeline in Other Indications

**5**  
Ongoing  
Development  
Programs

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<b>NGM313 (MK-3655)</b>	FGFR1c/KLB Agonistic Antibody (Once Monthly)	NASH, Type 2 Diabetes	Phase 1b	<b>MERCK</b> Licensed	
<b>NGM621</b>	Complement C3 Inhibitory Antibody (Long Acting)	Geographic Atrophy	Phase 2		<b>MERCK</b> Option
<b>NGM120</b>	GFRAL Antagonistic Antibody (Long Acting)	Cancer, Cancer Anorexia/Cachexia Syndrome (CACS)	Phase 1a/1b		<b>MERCK</b> Option
<b>NGM395</b>	GDF15 Analog (Long Acting)	Metabolic	Phase 1		Wholly-Owned

# Geographic Atrophy (GA)

- GA is characterized by progressive and irreversible loss of photoreceptors, retinal pigment epithelium (RPE) and choriocapillaris
- GA is typically bilateral and lesion enlargement results into irreversible blindness
- GA affects ~5 million people globally and ~1 million people in the US
- Currently no approved treatment for GA

## NEURODEGENERATIVE DISEASE OF THE RETINA

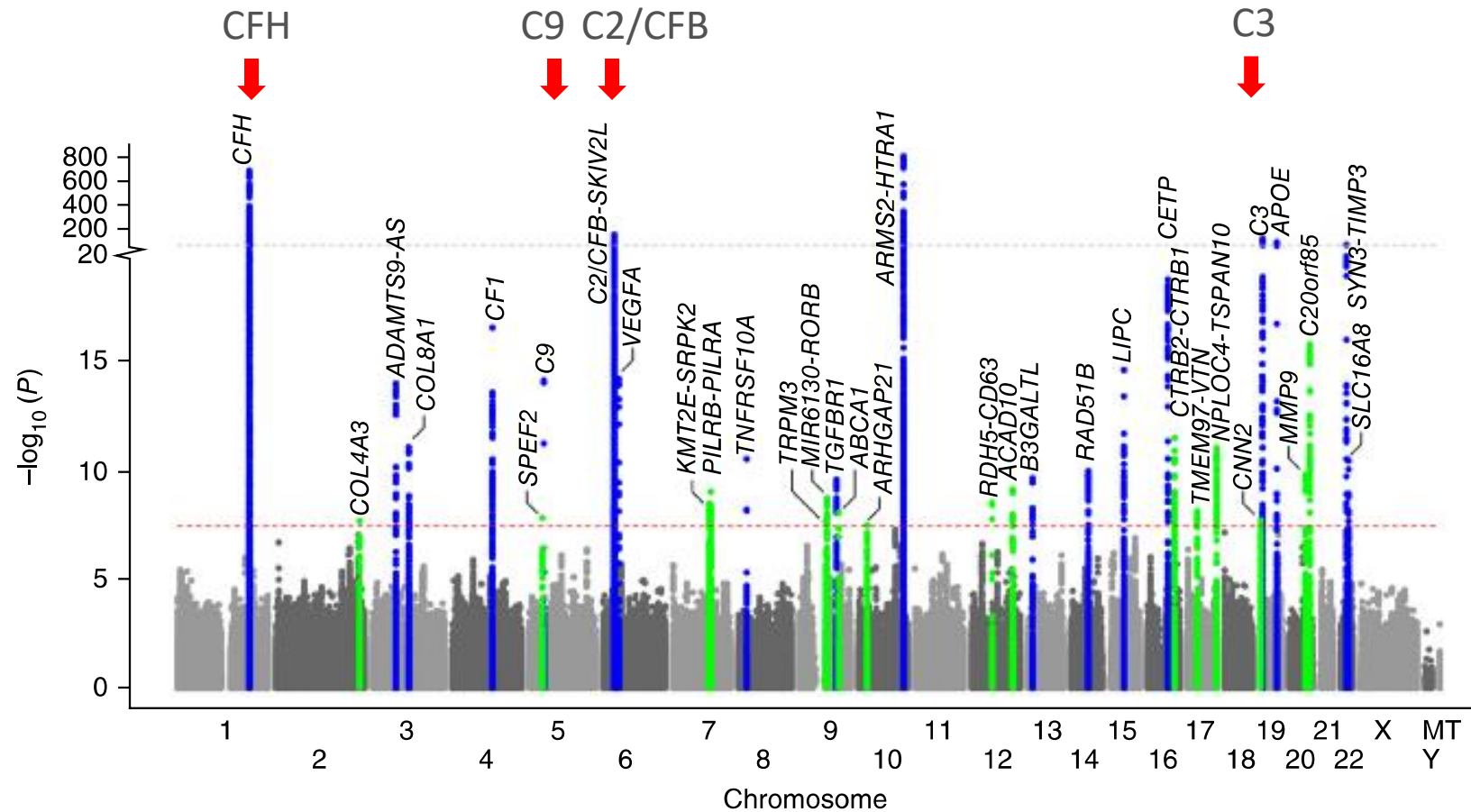


**~1M**  
affected in US

**~5M**  
worldwide

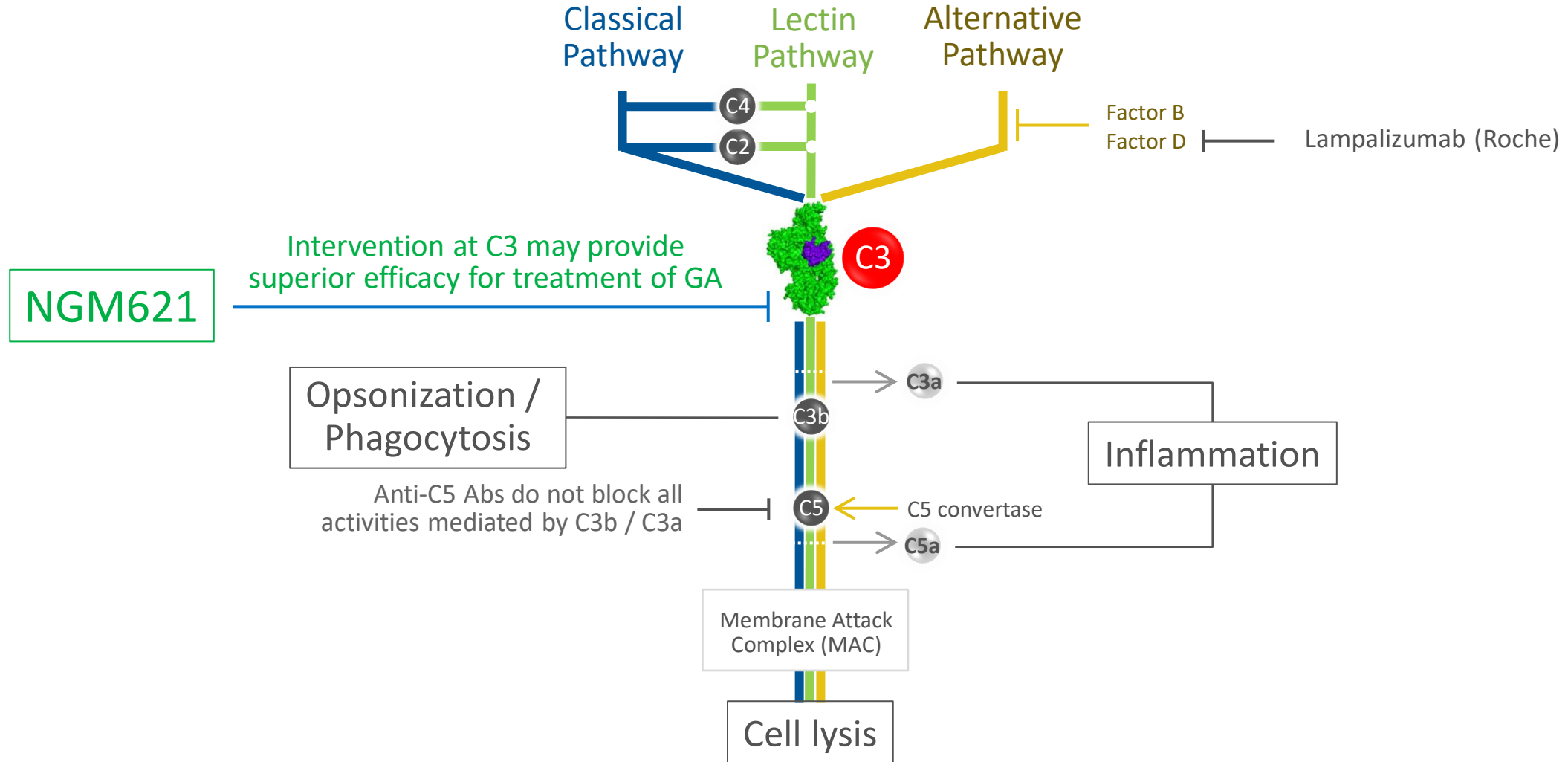
**No approved treatments**

# Complement Activation is Associated with Development of Advanced AMD

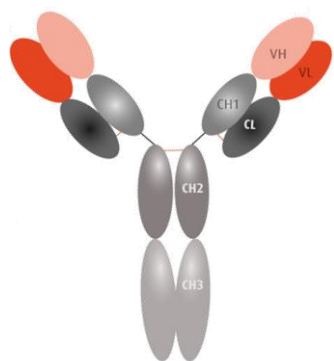


Variants in the complement pathway account for the majority of the known genetic risk for AMD

# NGM621 Targets Complement C3, Blocking All Three Pathways of Complement Activation

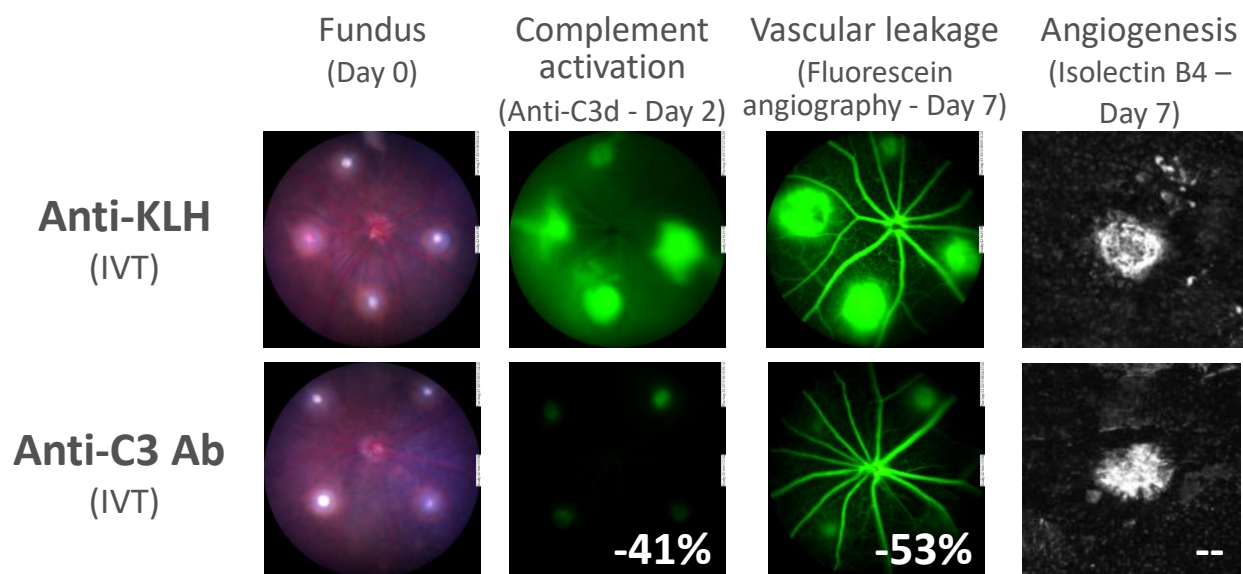


# NGM621: A Potent Anti-Complement C3 Antibody

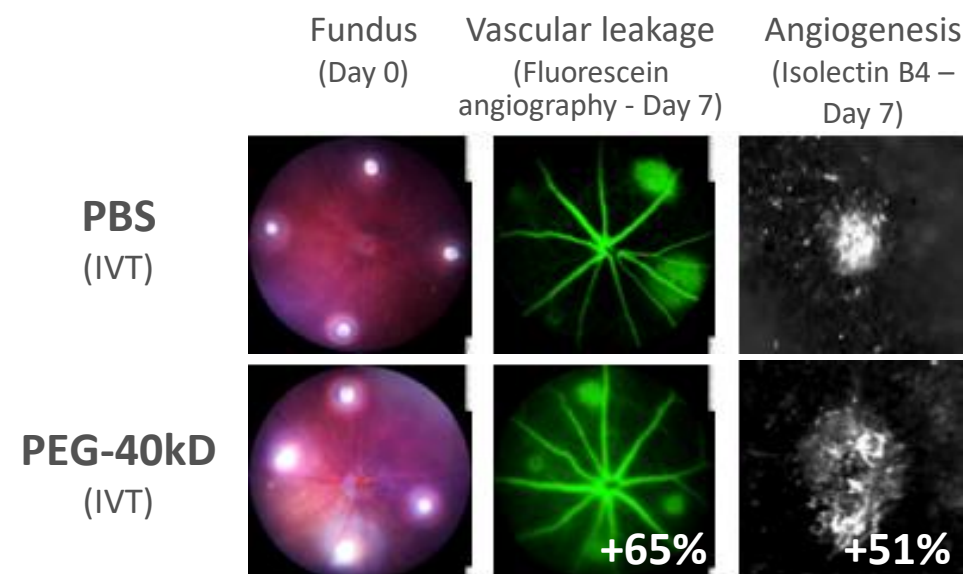


- Humanized IgG1 monoclonal antibody with high affinity binding for human C3 ( $K_D < 1$  nM)
- Potent inhibition of both classical and alternative pathways of complement activation ( $IC_{50} \sim 5-6$  nM)
- Potential for extended every eight-week dosing without pegylation

## Anti-C3 Ab reduces vascular leakage in laser injury-induced CNV in mice



## Antibody is preferred modality; PEG-40kD exacerbates laser injury-induced CNV in mice

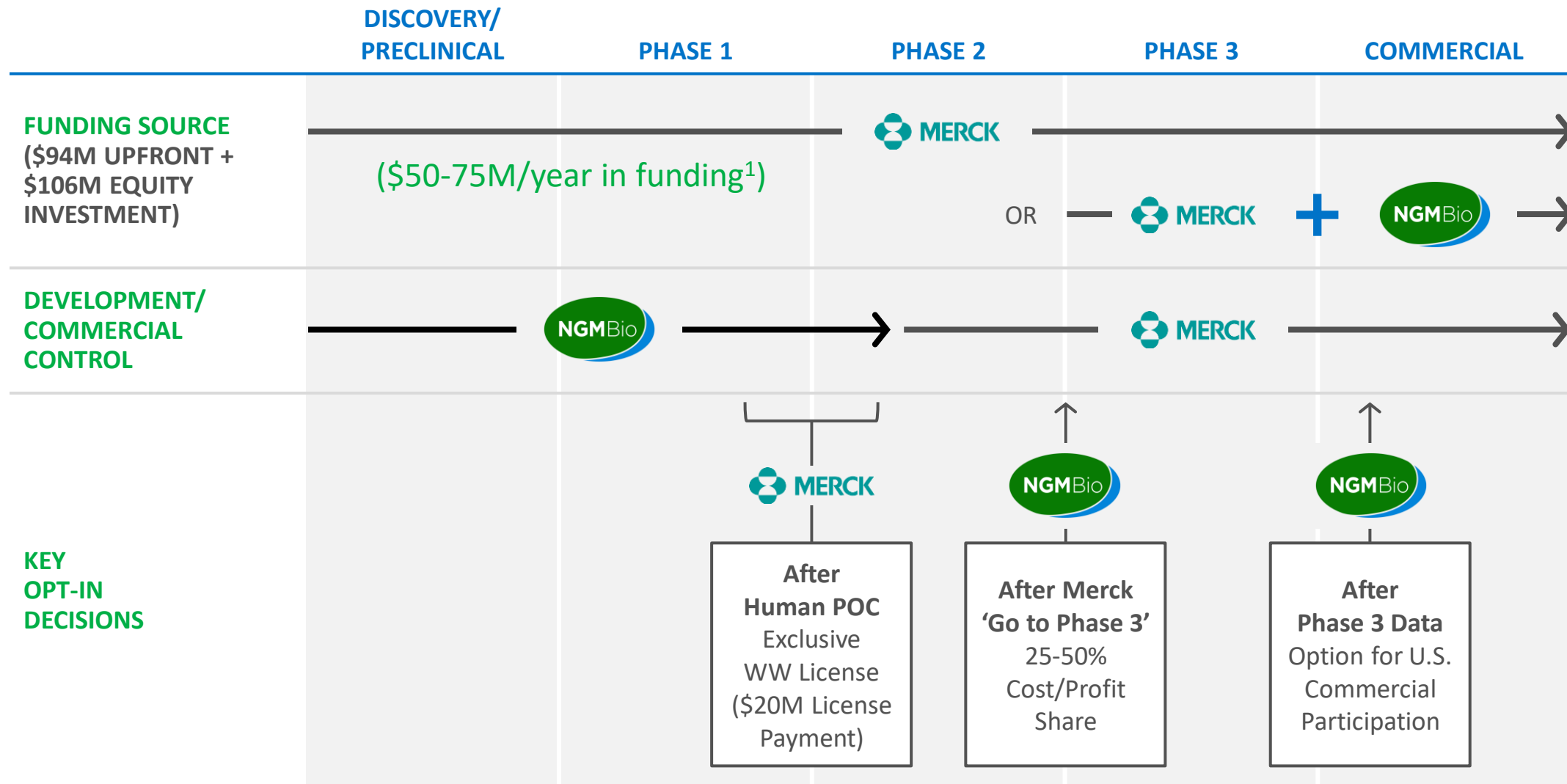


# NGM621 Development

- Ongoing Phase 2 CATALINA study: multicenter, randomized, double-masked, sham-controlled trial in patients with GA secondary to AMD
- Primary objectives to evaluate the efficacy and safety of intravitreal injections of NGM621 compared to sham control
  - Estimated enrollment of ~240 patients
  - NGM621 or sham administered every four or eight weeks for 48 weeks
- Study designed as a Phase 3-enabling study
- Successfully completed a first-in-human open-label Phase 1 study demonstrating NGM621 was well tolerated, supporting continued development
- Discovered by NGM under strategic collaboration with Merck








# Our Merck Collaboration: Growth-Accelerating Partnership



## 2Q20 and FY19 Financial Results

STATEMENT OF OPERATIONS (In thousands)	THREE MONTHS ENDED June 30, 2020 <sup>1</sup> (unaudited)	FULL YEAR ENDED DEC 31, 2019 (audited)
RELATED PARTY REVENUE	\$19,755	\$103,544
RESEARCH AND DEVELOPMENT EXPENSES	\$38,494	\$129,253
GENERAL AND ADMINISTRATIVE EXPENSES	\$6,794	\$23,631
TOTAL OPERATING EXPENSES	\$45,288	\$152,884
NET INCOME	(\$25,616)	(\$42,795)
BALANCE SHEET	June 30, 2020 (unaudited)	DEC 31, 2019 (audited)
CASH, CASH EQUIVALENTS AND SHORT-TERM MARKETABLE SECURITIES	\$312.1M	\$344.5M

# Multiple Potential Value-Driving Catalysts

Product Candidate	Potential Indications	Expected Milestones	Targeted Timing
<b>ALDAFERMIN</b>	NASH F2/F3	Phase 2 Cohort 4 biopsy data	1Q20 
<b>ALDAFERMIN</b>	NASH F4	ALPINE 4 FPI	1H20 
<b>ALDAFERMIN</b>	NASH F2/F3	ALPINE 2/3 topline data	2Q21
<b>NGM313 (MK-3655)</b>	NASH F2/F3	Phase 2b FPI (Merck)	2H20
<b>NGM621</b>	Geographic Atrophy	Phase 1 safety data presentation	2H20
<b>NGM621</b>	Geographic Atrophy	Phase 2 FPI	2H20 
<b>NGM120</b>	Cancer/CACS	Phase 1a/1b FPI	1Q20 
<b>NGM395</b>	Metabolic	Phase 1 FPI	1H20 

NASDAQ: NGM

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