



Corporate Presentation

May 2022

Forward-Looking Statements

This presentation contains statements about our future expectations, plans and prospects that constitute forward-looking statements for purposes of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Actual results may differ materially from those indicated by these forward-looking statements as a result of various important factors, including risks relating to: both our and our collaborators' ability to successfully research, obtain regulatory approvals for, develop and commercialize products based upon our technologies; our ability to obtain and maintain proprietary protection for our technologies and product candidates; our reliance on third parties to manufacture our preclinical and clinical drug supplies; competitive pressures; our ability to obtain and maintain strategic collaborations; compliance with our in-license agreements; our ability to successfully execute on, and receive favorable results from, our proprietary drug development efforts; market acceptance of our drug candidates; retaining members of our senior management; and our ability to raise additional funds to finance our operations.

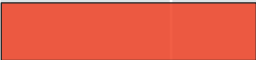
The forward-looking statements included in this presentation represent our views as of the date of this presentation. We anticipate that subsequent events and developments will cause our views to change. While we may elect to update these forward-looking statements in the future, we specifically disclaim any obligation to do so. These forward-looking statements should not be relied upon as representing our views as of any date subsequent to the date of this presentation.

For more information regarding risks and uncertainties that could affect the results of our operations or financial condition review our filings with the Securities and Exchange Commission (in particular, our most recent Annual Report on Form 10-K and any subsequently filed Quarterly Reports on Form 10-Q).

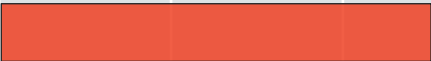
Investment Highlights

- **Focused on novel therapeutics for metabolic and endocrine diseases**
 - Clinical programs demonstrate best-in-class efficacy data
- **NASH and Lipid Disorders Program: VK2809**
 - Novel, selective thyroid receptor- β (TR β) agonist
 - Phase 2b VOYAGE trial in biopsy-confirmed NASH ongoing
- **Rare Disease Program: VK0214 for X-ALD**
 - Novel, selective thyroid receptor- β (TR β) agonist
 - Phase 1b in patients
- **Metabolic Disorders Program: VK2735**
 - Novel GLP-1/GIP dual agonist
 - Phase 1 ascending dose study ongoing

Pipeline Overview

Development Programs	Indication	Stage of Development				Status
		Preclin	Phase 1	Phase 2	Phase 3	
VK2809 (TR β agonist)	<i>NASH</i>					Phase 2b VOYAGE trial ongoing
VK0214 (TR β agonist)	<i>X-ALD</i>					Phase 1b
VK2735 (Dual GLP-1/GIP agonist)	<i>Metabolic disorders</i>					Phase 1 ongoing

Other Programs

VK5211 (SARM)	<i>Hip fracture, muscle wasting</i>					Phase 2 completed
VK0612 (FBPase inhibitor)	<i>Type 2 Diabetes</i>					Phase 2a completed
VK1430 (DGAT-1 inhibitor)	<i>Hypertriglyceridemia, NASH</i>					Preclinical



Metabolic Disease Program
VK2809: Selective Thyroid Receptor- β Agonist
Liver Disorders

Metabolic Disease Program: Selective Thyroid- β Agonists

- **Proprietary platform for small molecule thyroid hormone mimetics**
 - Highly tissue and receptor selective
 - Produce potent lipid reductions in animals and humans
 - Unique chemical scaffolds, expected wider safety window vs. other approaches
- **Biological profiles suggest potential benefit in multiple indications**
 - Broad: NASH, hypercholesterolemia, dyslipidemia
 - Rare: X-linked adrenoleukodystrophy (X-ALD), other
- **Lead molecules VK2809, VK0214**
 - Oral, once-daily formulations
 - VK2809: Phase 2b ongoing, biopsy-confirmed NASH
 - VK0214: Phase 1b ongoing, AMN

Thyroid Hormone Receptor Overview

Nuclear hormone receptors: 2 main types

Thyroid hormone receptor beta (TR β)

Liver

Positive effects

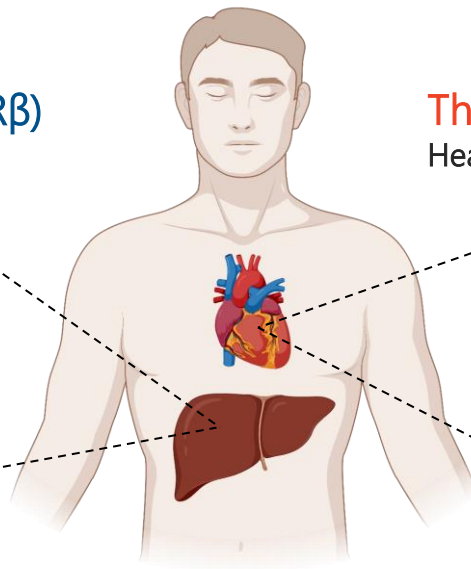
- Regulates lipid metabolism
- Reduces LDL-C, triglycerides, atherogenic proteins
- Improves metabolic control

Thyroid hormone receptor alpha (TR α)

Heart, skeletal muscle

Negative effects

- Proarrhythmic potential
- Elevates heart rate
- Bone/cartilage effects



Therapeutic goal, lipid setting: Beta receptor selectivity, minimize alpha effects

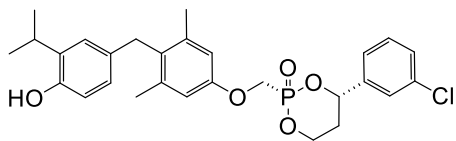
Thyroid Receptor β Agonists for NAFLD and NASH



- β -Receptor: Key role in lipid metabolism; systemic and liver-specific effects
- Receptor localized to liver, limited ex-hepatic expression
- In vivo evidence suggests β -activation provides anti-fibrotic benefits
- Clinical data indicate correlation between reduced liver fat, improvement in NAS

An agent that reduces liver fat, improves systemic lipids, and antagonizes fibrotic signaling could provide multi-pronged benefits in NASH

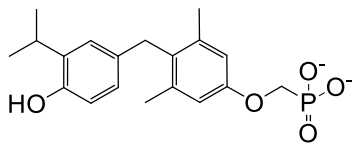
VK2809: Unique Liver-Targeted Characteristics



VK2809, Novel Prodrug

Following oral dosing:

- Cyp3A4-mediated cleavage of prodrug
- 3A4 is primarily expressed in liver
- Results in targeted delivery of drug to liver



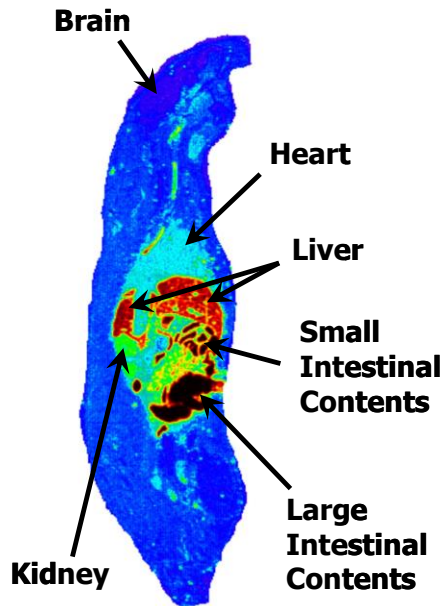
VK2809A, Potent TR β Agonist, 2.2 nM Ki

^{14}C QWBA (4 h)

High



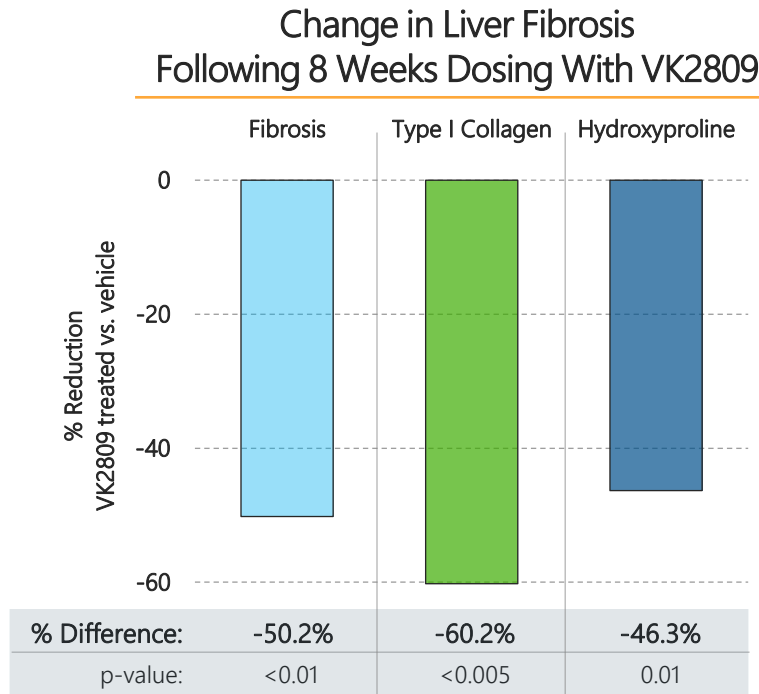
Low



Selective activation, differentiated chemistry lends VK2809 liver selectivity; potentially minimizes risk of systemic effects

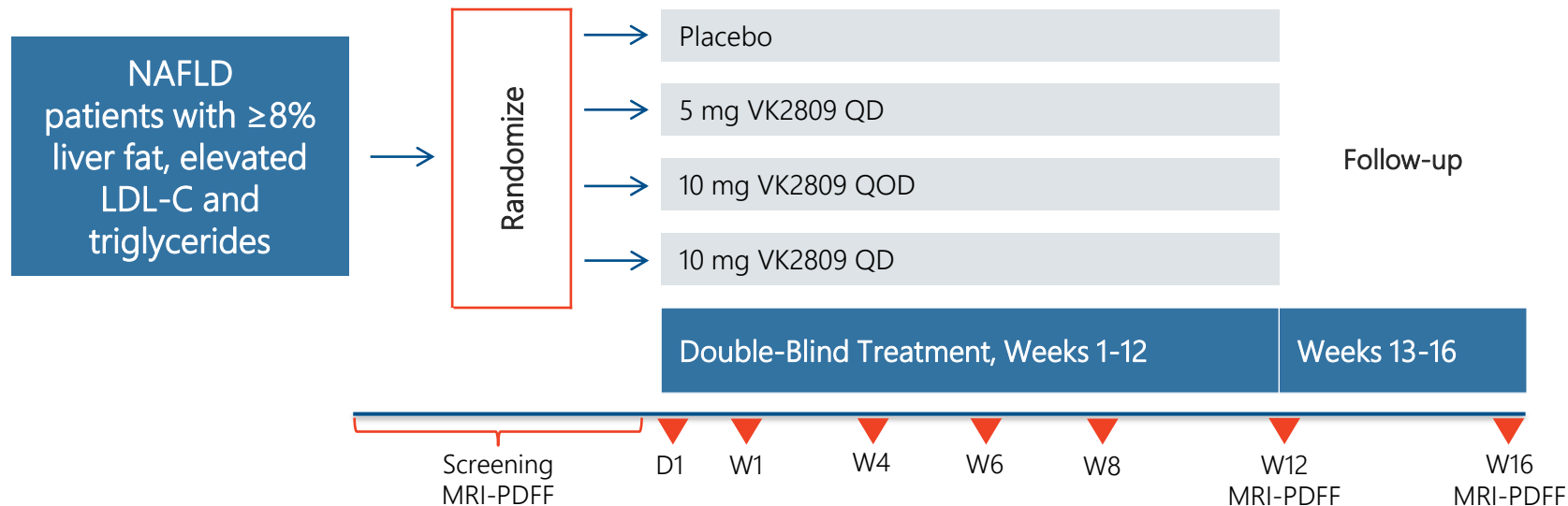
VK2809 Improves Fibrosis in Diet-Induced NASH Model

- Significant reductions in fibrosis, collagen, hydroxyproline after 8 weeks
- Up to 80% reduction in liver fat content
- Supports thesis that selective TR β activation produces broad metabolic benefits



VK2809 significantly improved NASH and fibrosis in this model

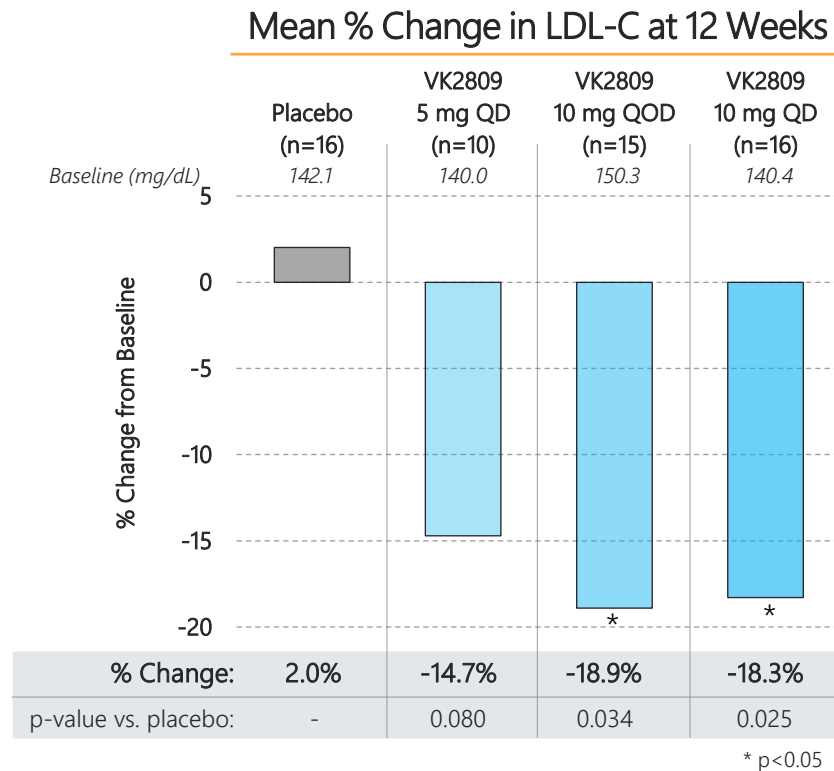
VK2809-201: Phase 2a Study Design



- Multi-arm, dose-ranging, 12 week Phase 2a trial
 - **Primary endpoint:** Change in LDL-C vs. placebo
 - **Secondary endpoint:** Change in liver fat by MRI-PDFF
 - **Exploratory endpoints:** Changes in atherogenic proteins

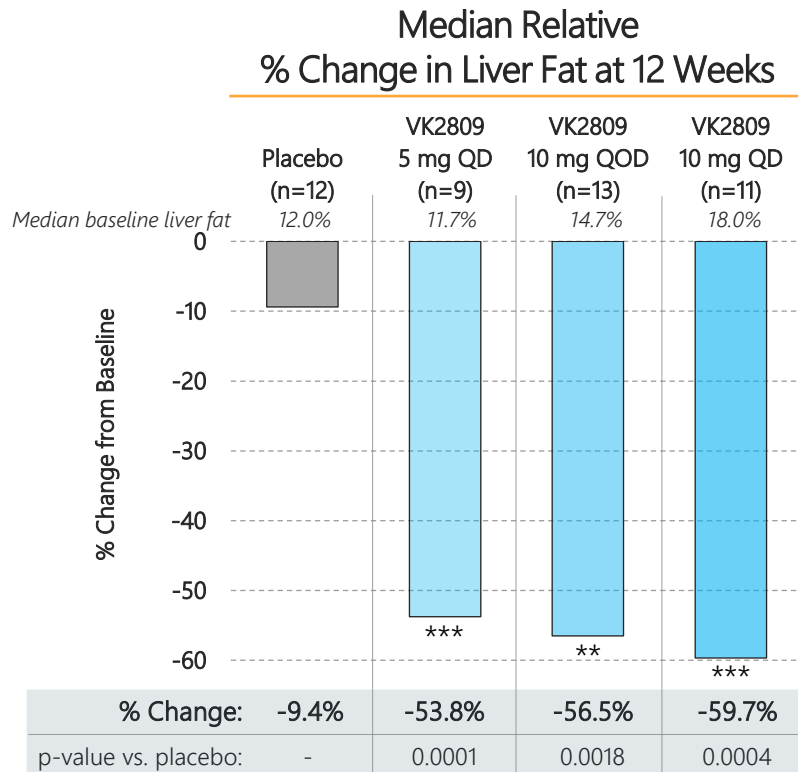
VK2809 Significantly Reduced LDL-C After 12 Weeks

- All VK2809 cohorts statistically significantly reduced vs. baseline
- Placebo-adjusted change from baseline
 - 5 mg QD: -23.7 mg/dL
 - 10 mg QOD: -27.1 mg/dL
 - 10 mg QD: -28.3 mg/dL



VK2809 Produced Significant Relative Reductions in Liver Fat

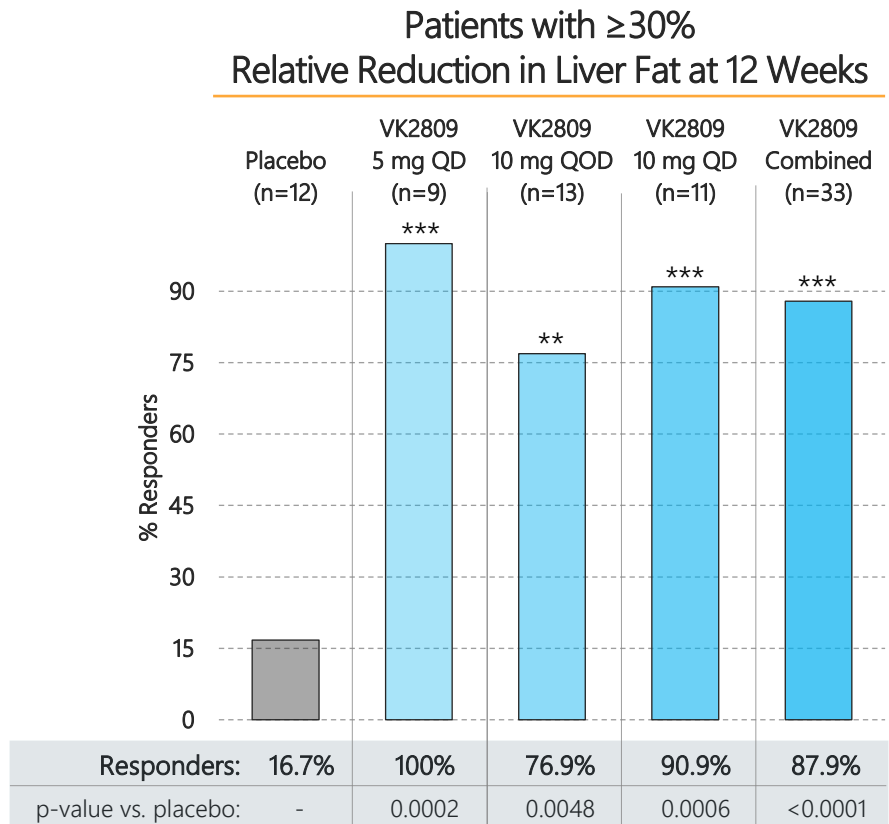
- Significant Relative Reductions from Baseline in Liver Fat by MRI-PDFF
- Maximal reductions at Week 12
 - 5 mg QD: 78%
 - 10 mg QOD: 72%
 - 10 mg QD: 76%



*p<0.05; **p<0.01; ***p<0.001

VK2809 Cohorts Demonstrated High Relative Response Rates

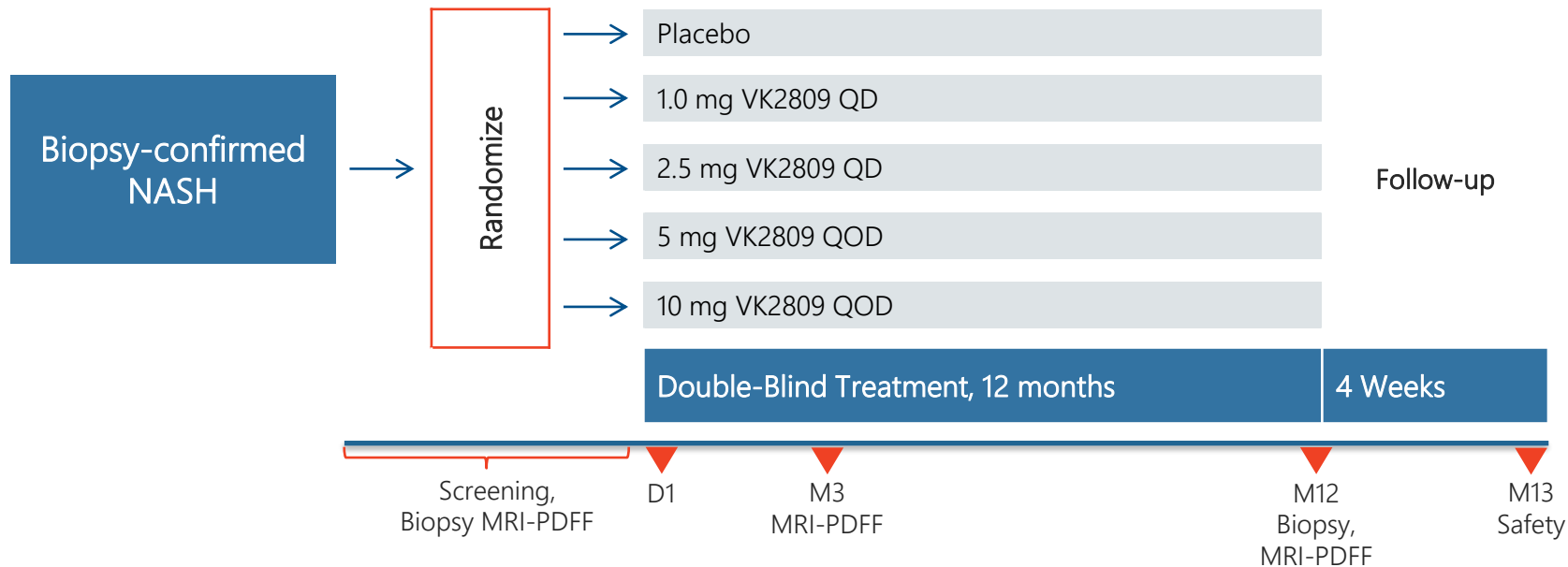
- Up to 100% of VK2809 patients experienced response, as defined by $\geq 30\%$ decrease in liver fat at Week 12
- Combined VK2809 cohorts demonstrated 88% response rate
- 70% of all patients receiving VK2809 demonstrated liver fat reductions $\geq 50\%$
- Reduction in liver fat correlated with improved odds of long-term histology benefit¹



VK2809-201: Encouraging Safety Profile Through 12 Weeks

• No SAEs observed	No SAEs reported in completed clinical studies to date
• Mean ALT, AST levels in VK2809-treated subjects reduced relative to placebo at Week 12	Patients with elevated baseline ALT demonstrated greater improvement relative to placebo at Weeks 12 and 16
• No other liver function tests significantly different from placebo	Direct bilirubin, indirect bilirubin, alkaline phosphatase, INR
• No clinically meaningful changes in other key markers among VK2809-treated patients relative to placebo	Thyroid hormones (fT4, tT3, TSH); Cardiovascular markers (troponin, CK-MB, NT proBNP); Vital signs (BP, heart rate, weight)
• Excellent tolerability	GI and nausea events numerically lower vs. placebo

VOYAGE Study: 12-Month Phase 2b Study of VK2809



- Multi-arm, dose-ranging, 12-month Phase 2 trial
 - **Primary endpoint:** Change in MRI-PDFF vs. placebo at 3 months
 - **Secondary endpoint:** Change in histology at 12 months (NAS, fibrosis markers, etc.)

VK2809 Competitive Advantages

- Currently >40 NASH programs in Phase 2 or Phase 3 development
- What differentiates VK2809 from the crowd?

- Orally available

Preferred route of administration for chronic therapy

- Liver-targeted

Reduces risk of undesired effects in other tissues

- Potently reduces liver fat

Weight loss and reduced liver fat correlate with NASH resolution, improved fibrosis markers

- Reduces systemic lipids, may improve overall metabolic profile

Bodes well for potential long-term CV benefit
No elevations in other lipids that may require polypharmacy

- Well tolerated

No GI impact, no pruritis or other tolerability issues to date



Rare Disease Program

VK0214

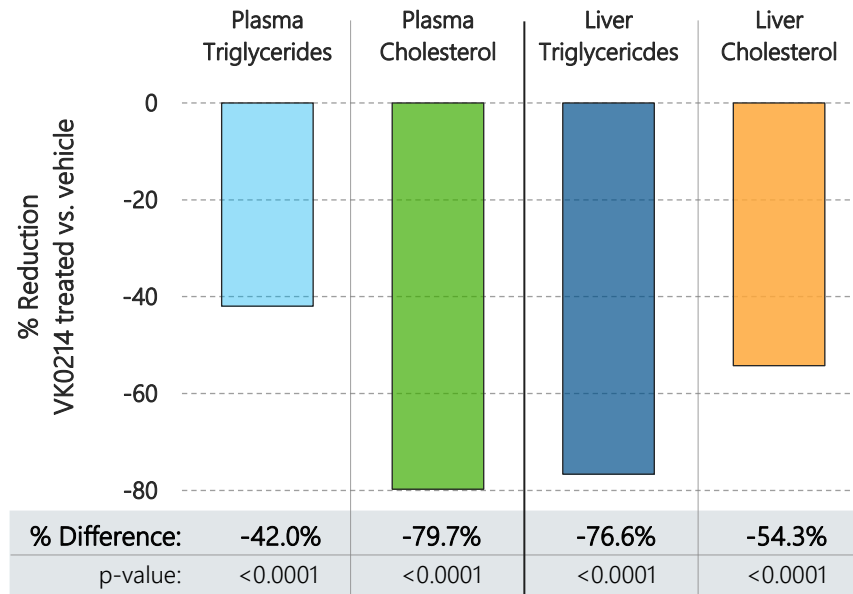
X-Linked Adrenoleukodystrophy

VK0214: Summary Profile

VK0214

- Potent small molecule thyroid receptor agonist
- 8 nM Ki at TR β receptor
- >20:1 selective for β : α
- Oral formulation, once-daily dosing
- Robust lipid lowering effects in multiple models

Change in Lipids Following 12 Weeks of Dosing With VK0214; Rodent NASH model



Demonstrates in vivo lipid reducing efficacy comparable to VK2809

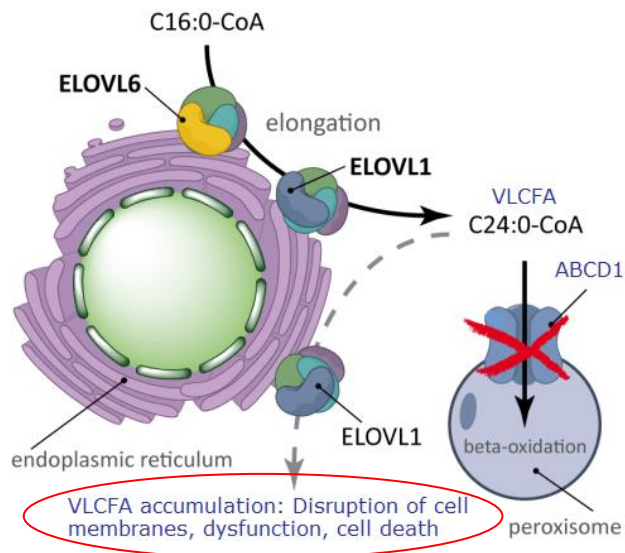
VK0214 for X-ALD

- **X-Linked adrenoleukodystrophy (X-ALD)**
 - Orphan neurodegenerative disorder
 - X-linked: Carried by females, primarily manifesting in males
 - No cure, no approved therapy
- **Most severe form: Cerebral ALD**
 - Rapidly progressive inflammatory demyelination; disruption of BBB
 - Affects ~35% before age 12 (CCALD), ~20% between age 20 – 35 (CALD)
 - Deterioration in speech, cognition; vegetative state within 3-5 years
- **Most common form: Adrenomyeloneuropathy (AMN)**
 - Affects spinal cord, motor neurons; no inflammatory component or brain involvement
 - Affects nearly all adult patients; considered “default” manifestation of ALD
 - Progressive motor impairment; wheelchair confinement, leg paralysis common

TR β and X-Linked Adrenoleukodystrophy

Caused by mutation in gene for the ATP-Binding Cassette transporter D1 (ABCD1)

- Peroxisomal transporter of very long chain fatty acids (VLCFA)



ABCD1: Normal function to transport VLCFA into peroxisome for degradation

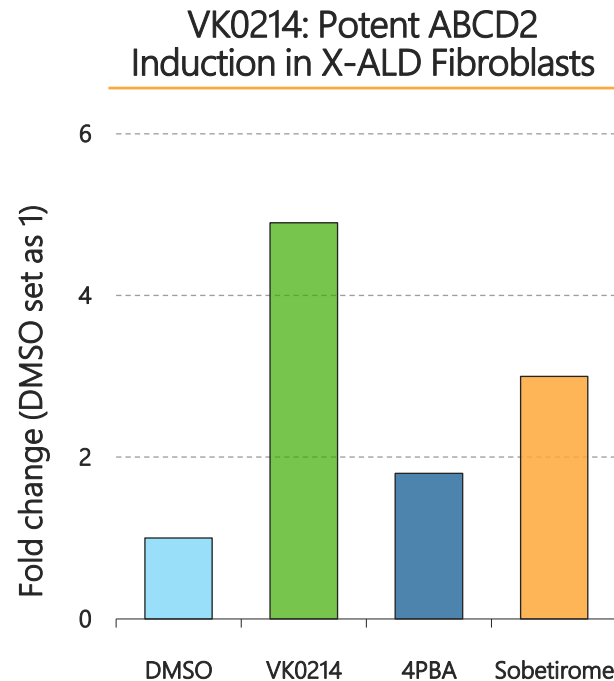
X-ALD: Defective ABCD1 leads to accumulation of VLCFA in tissues

High VLCFA levels disrupt cell membranes; inflammatory demyelination in brain tissue; motor neuron deterioration

TR β Agonists: Stimulate expression of compensatory transporters ABCD2, 3; may mitigate VLCFA elevation

Strong Rationale for TR β Agonist Therapy in X-ALD

- Alternative VLCFA transporters ABCD2,-3 are induced by TR β receptor
 - Mechanistically compensate for ABCD1 deficiency
- Over-expression of ABCD2 corrects VLCFA elevation *in vitro* and *in vivo*
- *In vitro* PoC established in X-ALD fibroblasts

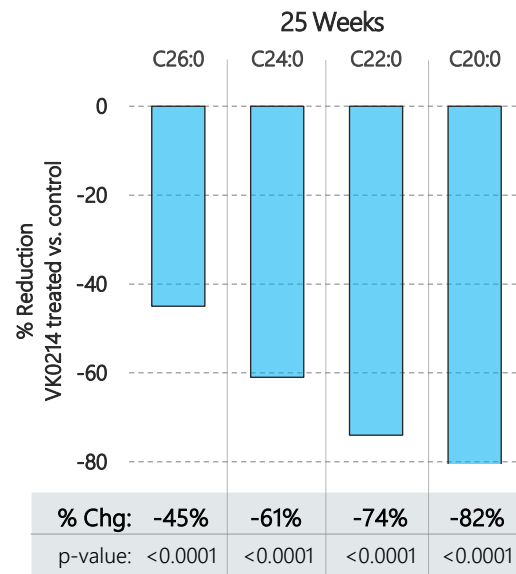
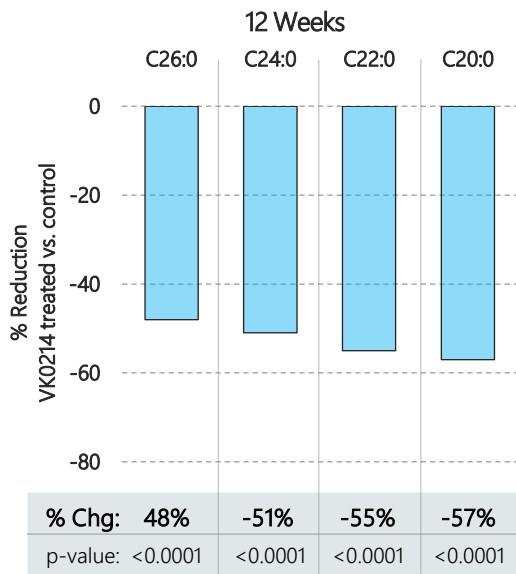
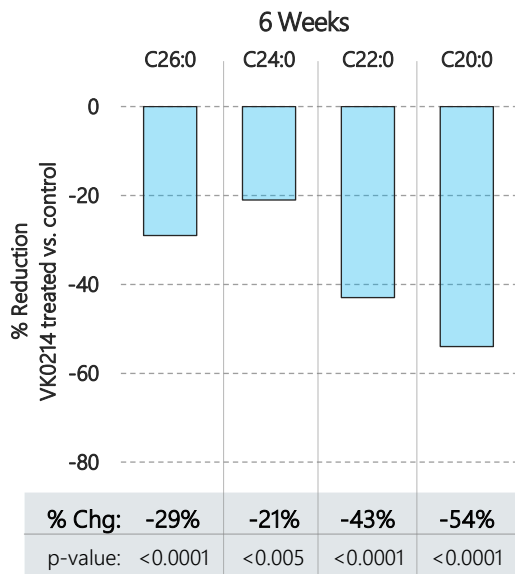


VK0214 successfully induces ABCD2 expression in human X-ALD cells

VK0214: *In Vivo* Proof-of-Concept Data, ABCD1 KO Mouse

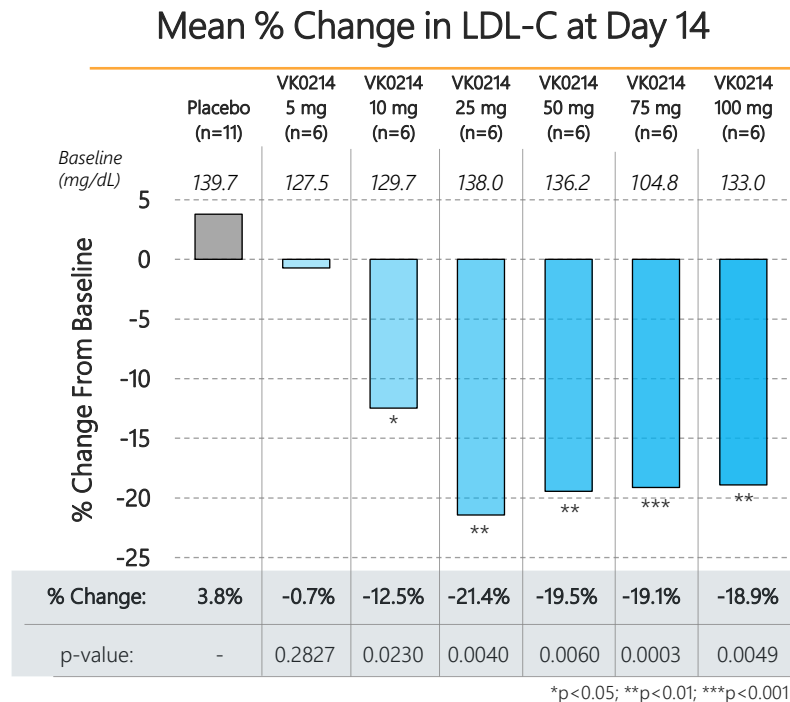
- ABCD1 Knockout model: Mimics biochemical features of human X-ALD
- VK0214: Durable and progressive reductions in plasma VLCFAs
 - Tissue effects suggest encouraging CNS activity following long-term exposure

Reductions in Plasma VLCFA-LPC, ABCD1 Knockout Model



Phase 1 Study of VK0214 in Healthy Volunteers

- Potent reductions in lipids observed after 14 days of treatment
- Reduction in LDL-C similar to observations with VK2809
- Initial effect observed @ ~10 mg
- Appears to plateau at approximately 20% reduction from baseline

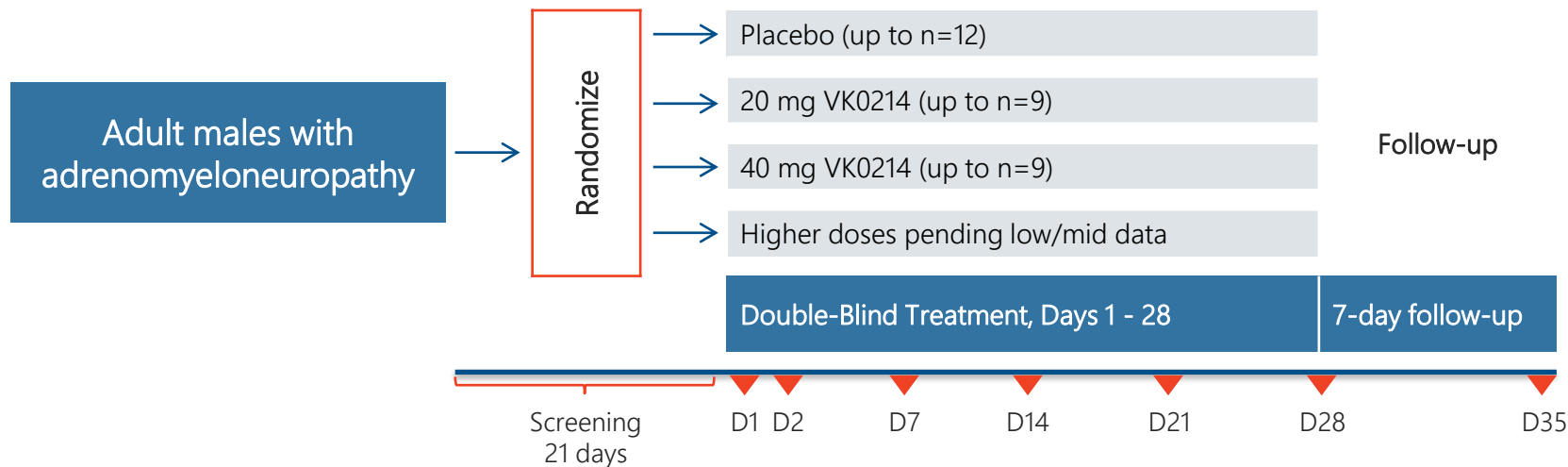


~20% reduction from baseline consistent with TR β agonist mechanism

Takeaways From VK0214 Phase 1 SAD/MAD Study

- Encouraging overall safety and tolerability, no SAEs observed
- No meaningful impact to vital signs, cardiovascular parameters, thyroid axis
- Attractive PK profile; predictable exposures with once-daily dosing
- Preliminary lipid data suggest similar efficacy to VK2809
- Results support further study in adrenomyeloneuropathy (AMN) patients

VK0214 Phase 1b Study in Adrenomyeloneuropathy



- Multicenter, parallel cohort, 28-day Phase 1b trial in adrenomyeloneuropathy
 - Higher doses may be explored pending review of initial cohorts
- Safety, tolerability, change in VLCFAs in male patients with AMN
- Currently on Clinical Hold pending completion of rodent genotoxicity study



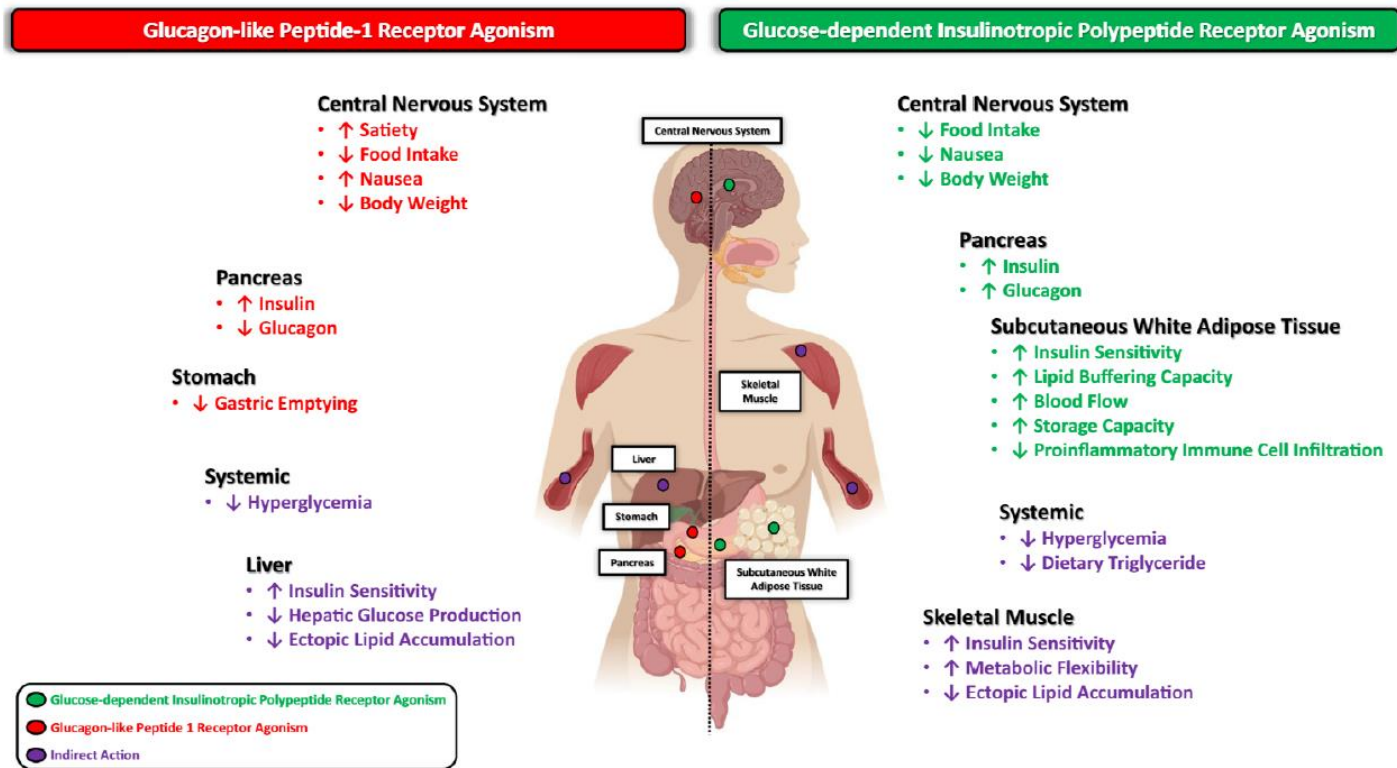
Dual Agonist Program VK2735

Novel GLP-1/GIP receptor agonist

GLP-1/GIP Dual Agonists for Metabolic Disorders

- Both peptides secreted by intestines after meal
- Receptors have complementary distribution and activities
- Pancreatic activation stimulates insulin production
- Enhanced insulin sensitivity; glucose, lipid metabolism
- May have applications in obesity, NASH, diabetes

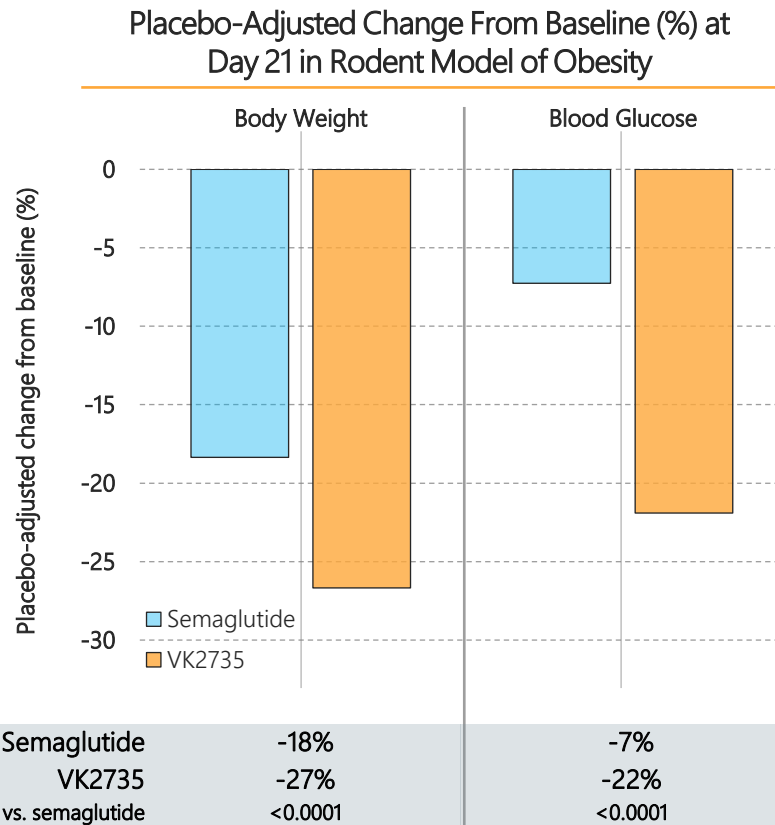
GLP-1/GIP Receptor Co-Activation and Downstream Effects



VK2735: Novel Dual Agonist of GLP-1 and GIP Receptors

Internally Developed Dual Agonists

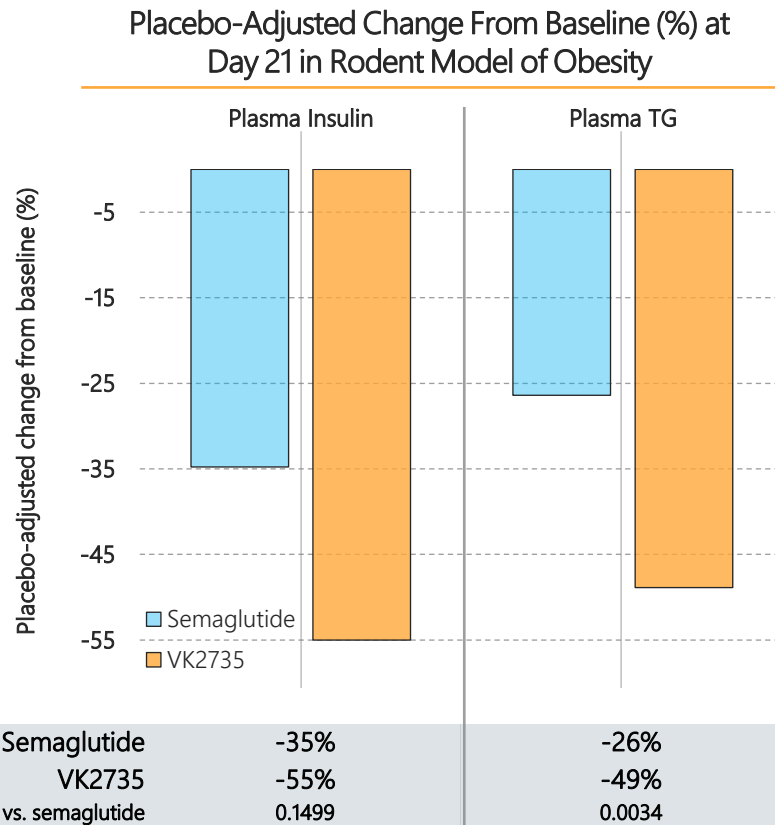
- GLP-1 receptor activity similar to known agonist semaglutide
- Variable GIP activity
- Lead compound VK2735: Robust reduction in body weight, blood glucose in rodent models
- Data support additive benefit of GIP-agonist activity on top of GLP-1 activation



VK2735 Glucose, Lipid Effects Exceed GLP-1 Mono-Agonists

GIP Activation Enhances GLP-1 Effects

- VK2735 demonstrates broad improvements vs. GLP-1 mono-agonist at same dose level
- Improved insulin sensitivity, plasma lipids after 21 days of dosing in rodent model
- Supports additive GIP-mediated insulin secretion on top of GLP-1 effect
- Currently in Phase 1 study to evaluate safety, tolerability, PK



VK2735 Phase 1 Study Underway

- Phase 1 SAD/MAD study to evaluate safety, tolerability, pharmacokinetics
- Healthy adult subjects
- Multiple dose portion will assess 28 days of once-weekly dosing
- Includes exploratory assessments of changes in body weight, liver fat content
- Results potentially available 2H22

Financial Summary

- Capital structure and summary financials

Capital Structure ¹	In '000s
Shares outstanding	77,374
Options, RSUs	6,844
Warrants	15
Total shares, options, RSUs, warrants	84,233

Financials	Mar. 31, 2022 (\$'000s)
Cash burn Q1 2021	\$17,204
Cash and ST Investments	\$184,899
Notes: 1) As of March 31, 2022	

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