

Improving Kidney Health Outcomes Lead Program: Varoglutamstat in Diabetic Kidney Disease

February 2025

Important Notice and Disclaimer

This document has been prepared by Vivoryon Therapeutics N.V. (the "Company" or "We") strictly only for discussion purposes. This document does not constitute or form part of any offer or invitation to sell or issue, any offer or inducement or invitation or commitment to purchase or subscribe for, or any solicitation of any offer to purchase or subscribe for, any securities in the Company or any other entity. By reviewing this document, you represent that you are able to receive this document without contravention of any legal or regulatory restrictions applicable to you and will not use this information in relation to any investment decision.

This document and its contents may not be reproduced, redistributed, published or passed on, directly or indirectly, to any other person or published, in whole or in part, for any purpose. Failure to comply with these restrictions may constitute a violation of applicable securities laws. By accepting and reading this document, you will be deemed to agree not to disclose, reproduce or otherwise distribute any information contained herein.

Certain information contained in this document has been obtained from published and non-published sources prepared by third parties. While such information is believed to be reliable for the purposes used herein, none of the Company or its affiliates, directors, officers, employees, members, partners, shareholders or agents make any representation or warranty with respect to or assume any responsibility for the accuracy of such information, and such information has not been independently verified by the Company.

Certain statements contained in this document constitute forward-looking statements, estimates, predictions, influences and projections which are subject to risks and uncertainties and may reflect various assumptions, which may or may not prove to be correct. These forward-looking statements include information about possible or assumed future results of the Company's business, financial condition, results of operations, liquidity, business strategy, management plans and objectives for future operations. In particular, the words "anticipate," "believe," "could," "expect," "should," "plan," "intend," "estimate" and "potential," or other similar expressions are intended to identify forward-looking statements. Forwardlooking statements appear in a number of places in this presentation and include, but are not limited to, statements regarding our intent, belief or current expectations. Forwardlooking statements are based on our management's beliefs and assumptions and on information currently available to our management. Such statements are subject to risks and uncertainties, and actual results may differ materially from those expressed or implied in the forward-looking statements due to of various risk factors and uncertainties including without limitation in relation to: the effectiveness of our main product candidate, and our ability to commercialize it if the regulatory approval is obtained; our ability to explore other potential fields of application of our product candidates and benefits of combination therapies between our product candidates and other products; our ability to compete and conduct our business in the future; our ability to expend our limited resources and to obtain funding for our operations necessary to continue as a going concern or to complete further development and commercialization of our product candidates; the timing of and our ability to obtain and maintain regulatory approval for our product candidates; the initiation, timing, progress, results, and cost of our research and development programs and our current and future preclinical studies and clinical trials, including statements regarding the timing of initiation and completion of studies or trials and related preparatory work, the period during which the results of the trials will become available and our research and development programs. These risks and uncertainties and other factors could materially adversely affect the outcome and financial effects of the plans and events described herein. Our results of operations, cash needs, financial condition, liquidity, prospects, future transactions, strategies or events may differ materially from those expressed or implied in such forward-looking statements and from expectations. Moreover, we operate in an evolving environment. Thus, new risk factors and uncertainties emerge from time to time and it is not possible for our management to predict all risk factors and uncertainties, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. We qualify all of our forward-looking statements by these cautionary statements.

Forward-looking statements speak only as of the date they are made, and we do not undertake any obligation to update them in light of new information or future developments or to release publicly any revisions to these statements in order to reflect later events or circumstances or to reflect the occurrence of unanticipated events or otherwise, except as required by applicable law.



Vivoryon: Poised to improve kidney health with varoglutamstat's novel mechanism of action and breakthrough clinical results



Strong scientific base; novel MoA (QPCT/L inhibition); pE-CCL2 data confirms target engagement



Two independent Phase 2 studies¹; compelling long-term kidney function improvement



Extensive safety data package for varoglutamstat with convenient dose escalation scheme



Focused development plan for significant commercial opportunity in DKD and beyond



Additional potential orphan indications e.g. Alport syndrome / Fabry disease



Composition of matter patent protection² expected to 2044+



Cash runway into Q3 2025; actively pursuing funding and BD opportunities



Inhibiting QPCTL has potential to halt the progressive course of kidney disease through unique approach to tackle inflammation and fibrosis

Huge unmet medical need



Current treatments do not stabilize / improve kidney function leaving significant risk of ESRD (dialysis, transplant) or cardiovascular event

Inflammation a key underlying driver



Inflammation and fibrosis have long been known as key drivers of disease yet attempts to develop effective therapeutics selectively targeting key pathways have had limited success

Targeting QPCTL to unlock inflammatory approach

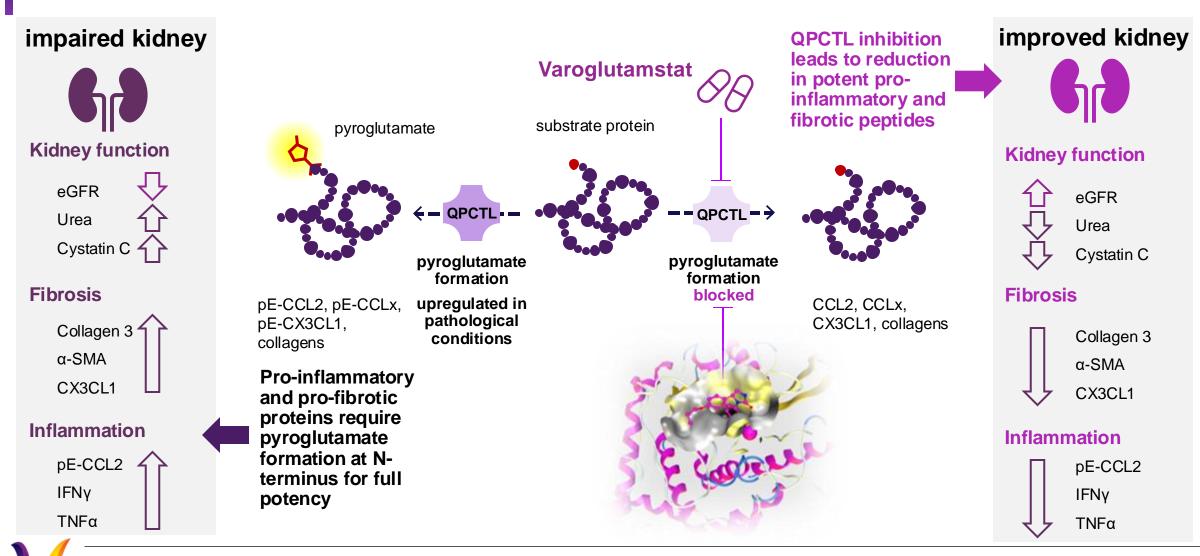


Vivoryon has identified QPCTL, an enzyme that creates pro-inflammatory pE-versions of key inflammatory proteins, as a promising target with potential to stabilize disease

Varoglutamstat

- Oral, selective QPCTL inhibitor
- Significantly improved kidney function¹ in two independent Phase 2 studies²
- Unprecedentedly large and sustainable effect size over two years

Groundbreaking discovery: Inhibition of QPCTL reduces kidney inflammation and fibrosis, and improves pathophysiology and kidney function



Vivoryon has evaluated varoglutamstat's effect on kidney function in two independent randomized double-blind placebo-controlled Phase 2 studies

Similarities and differences between VIVIAD and VIVA-MIND studies

Parameter	VIVIAD (Europe)	VIVA-MIND (U.S.)		
Patient selection	Mild AD, mean age 68 yrs	Mild AD, mean age 72 yrs		
No. of patients treated	n=259	n=109		
Varoglutamstat dose investigated	300 and 600 mg BID	600 mg BID		
Dose escalation period	Slow: 600 mg start week 13	Fast: 600 mg start week 9		
Treatment duration	76 weeks (mean) / 96 weeks (max.)	46 weeks (mean) / 72 weeks (max.)		
eGFR¹ sampling	Every 12 weeks plus week 4	Every 12 weeks plus weeks 4, 8,16		
No. of patients with diabetes	N=32 (12.4%)	N=16 (14.7%)		

Kidney function, measured using eGFR, was a pre-specified safety / exploratory endpoint



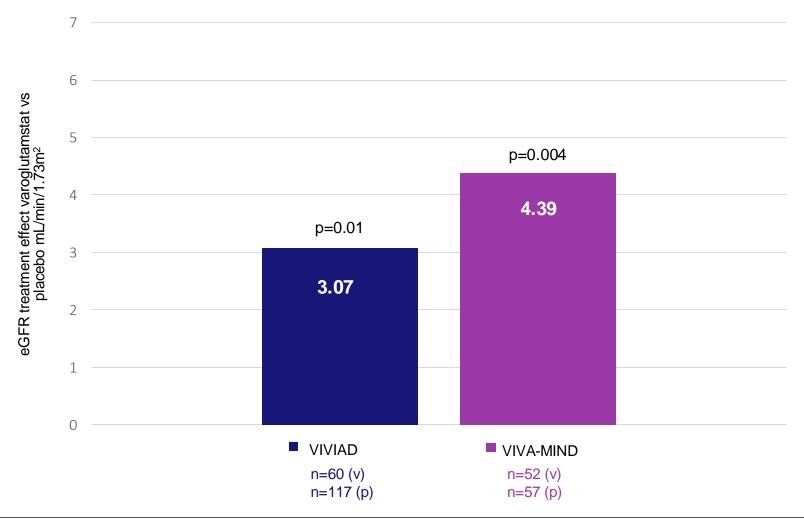
VIVIAD and VIVA-MIND both show a statistically significant and clinically meaningful improvement in eGFR over baseline

eGFR results (MDRD); all patients randomized to 600 mg BID varoglutamstat (v) and placebo (p)

eGFR treatment effect:

Difference between varoglutamstat and placebo (LSmean change from baseline)

Total population, 600 mg BID patients only, all visits



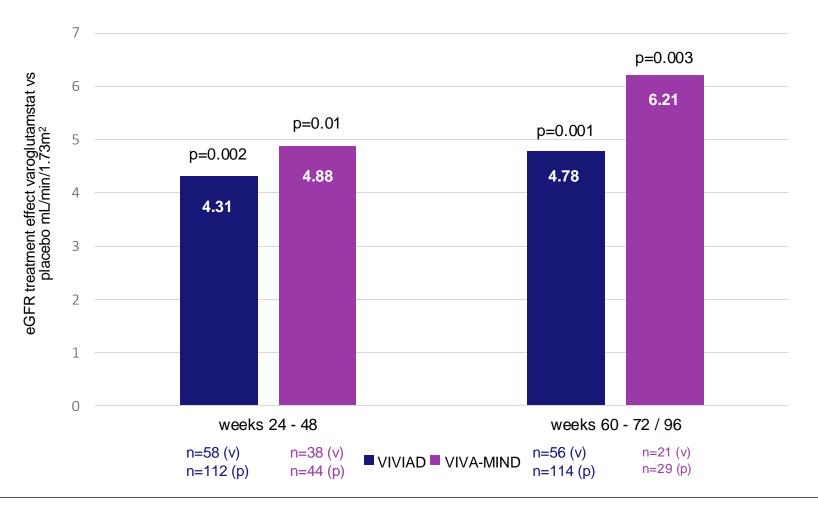


Consistent improvement in kidney function and effect size across distinct treatment periods in both studies

Sensitivity analysis; all patients randomized to 600 mg BID varoglutamstat (v) and placebo (p)

eGFR treatment effect:

Difference between varoglutamstat and placebo (LSmean change from baseline)



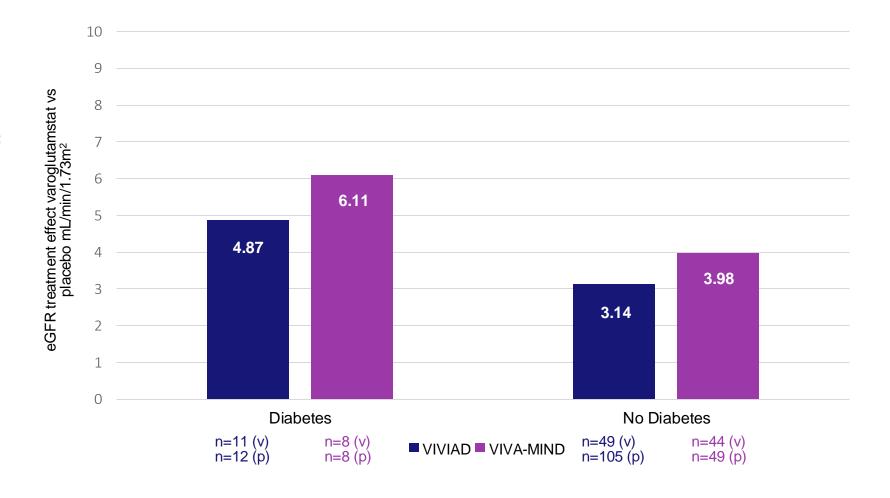


Results are nearly identical between studies when comparing treatment effect in patients with or without diabetes, with consistently higher effect in diabetes

Subgroup analysis; with and without diabetes; 600 mg BID varoglutamstat (v) and placebo (p)

eGFR treatment effect:

Difference between varoglutamstat and placebo (LSmean change from baseline)



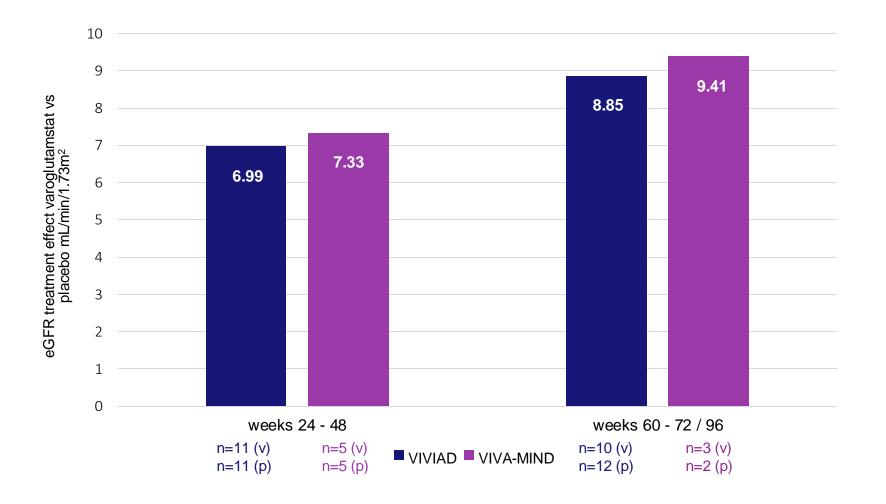


Consistent and very strong efficacy signal and large treatment effect observed in both studies in patients with diabetes at different timepoints

Subgroup analysis; patients with diabetes; 600 mg BID varoglutamstat (v) and placebo (p)

eGFR treatment effect:

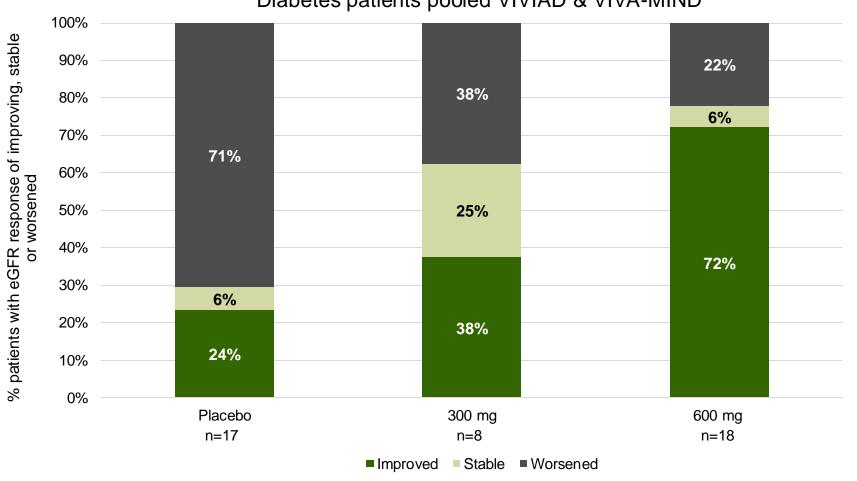
Difference between varoglutamstat and placebo (LSmean change from baseline)





Responder analysis: kidney function predominantly improved or stabilized in varoglutamstat treated patients compared to a decline in the placebo group





Classification of eGFR response

(change vs. baseline, mL/min/1.73m²)

- Improved: ≥ 2 mL above baseline
- Stable: ≥ 0 < 2 mL above baseline
- Worsened: < 0 mL below baseline

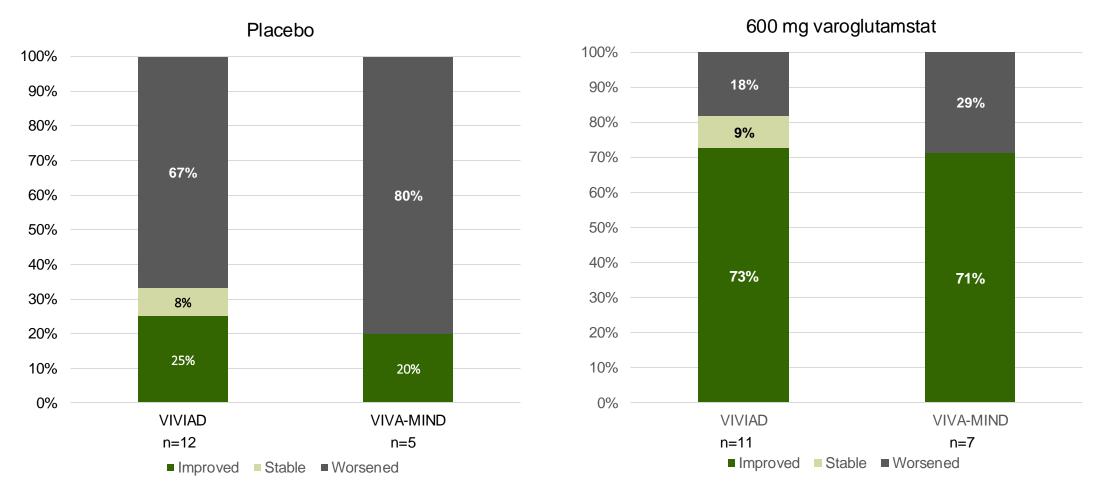
Response analysis (proportional odds)

300 mg vs placebo 2.91, 95% CI (0.55, 15.53), p=0.2106

600 mg vs. placebo 9.20, 95% CI (2.14, 39.50), p=0.028



Sensitivity analysis: side by side comparison of responder analysis in diabetes patients shows high consistency between studies in diabetes patients

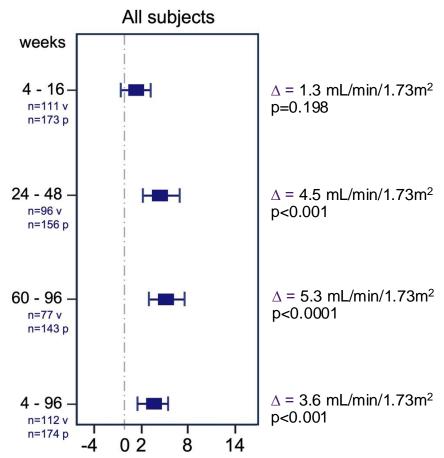


Classification of eGFR response (change mean eGFR (week 12-EOT) vs. baseline, mL/min/1.73m²): Improved: ≥ 2 mL above baseline, Stable: ≥ 0 - < 2 mL above baseline, Worsened: < 0 mL below baseline



VIVIAD and VIVA-MIND: Meta-analysis shows strong effect on eGFR

Difference of change from baseline between varoglutamstat (v) and placebo (p) of eGFR (MDRD)



Treatment effect and 95% confidence intervals (mL/min/1.73m²)

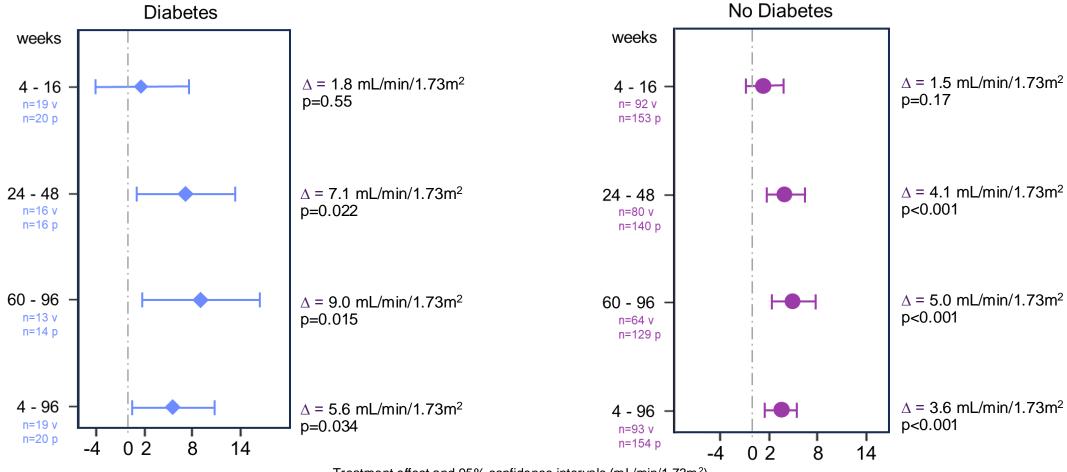
- 0: No treatment effect; > 0: Improvement of eGFR (MDRD);
- n: Number of patients in the varoglutamstat (v) and placebo (p) group

- Meta-analysis includes all patients on placebo and all patients randomized to 600 mg varoglutamstat BID of both studies (patients randomized to 300 mg BID in VIVIAD not included)
- Improvement of eGFR kidney function is demonstrated in the total population
- Difference of change from baseline between varoglutamstat and placebo becomes significant at week 24
- Treatment effect is maintained for 2 years

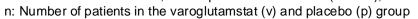


VIVIAD and VIVA-MIND: Meta-analysis shows a larger effect size in diabetes versus non-diabetes patients

Difference of change from baseline between varoglutamstat (v) and placebo (p) of eGFR (MDRD)



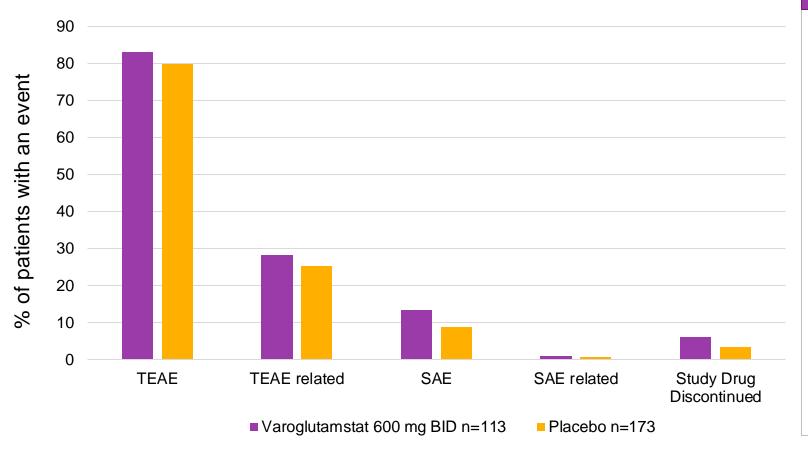
Treatment effect and 95% confidence intervals (mL/min/1.73m²) 0: No treatment effect; > 0: Improvement of eGFR (MDRD);





Safety: pooled analysis of VIVIAD and VIVA-MIND 600 mg varoglutamstat is well tolerated

All patients randomized to 600 mg varoglutamstat BID and placebo



Extensive safety package (# / duration)

Pharmacology / Phase 1

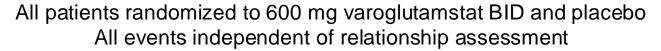
- Phase 1 study: large trial with 205 subjects
- Human ADME / mass balance study completed

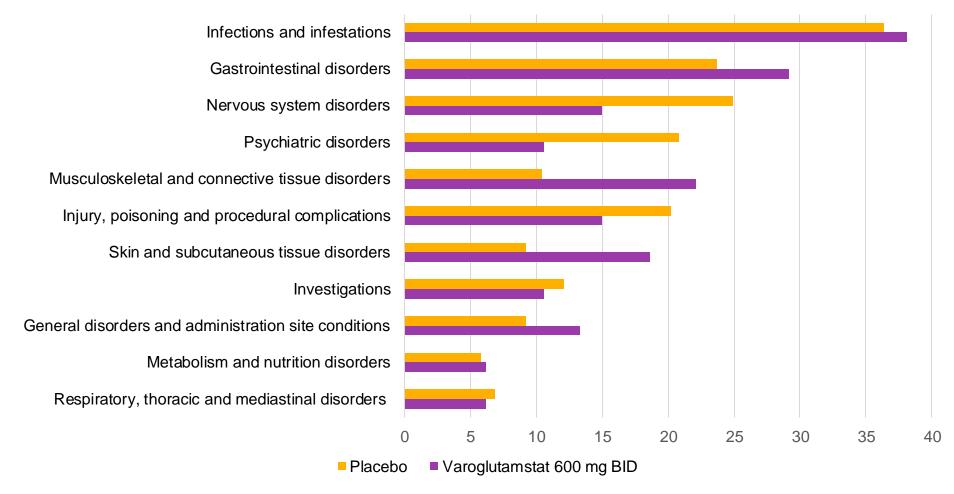
Phase 2 double-blind, placebocontrolled

- Phase 2a study: 120 patients, 12 weeks
- VIVIAD Phase 2b study: 259 patients, avg. treatment duration ~80 weeks
- VIVA-MIND Phase 2 study: 109 patients treated, avg. treatment duration
 ~46 weeks



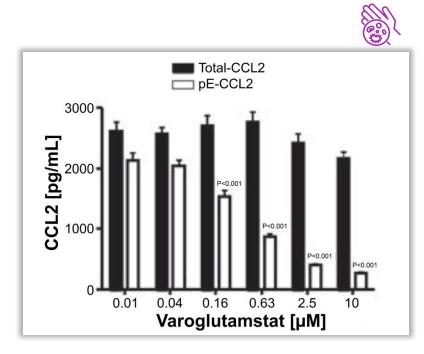
Pooled safety analysis VIVIAD and VIVA-MIND: TEAE by system organ class



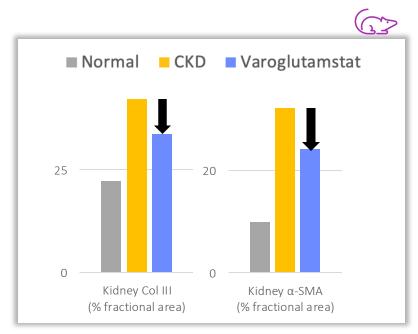




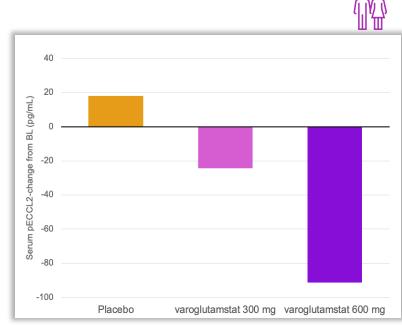
Robust evidence demonstrating inhibition of intracellular QPCTL decreases activity of pro-inflammatory cytokines and kidney fibrosis



Decrease of pE-CCL2 levels by QPCT/L inhibitor application. LPS-stimulation of RAW264.7 cells. Analysis of varoglutamstat effect on total-CCL2 and pE-CCL2.



Histological changes show improvement of kidney Col-III and α -SMA. Adenine-induced mouse model of CKD.



Median reduction in pE-CCL2 levels compared to baseline with varoglutamstat. VIVIAD, total population, at week 48.



A convenient new treatment option to fill the existing gap in kidney diseases

Varoglutamstat has the potential to stabilize/counteract continuous decline in kidney function



Single agent oral compound



First-in-class mechanism of action addressing key pathways in inflammation / fibrosis



Consistent, statistically significant and clinically meaningful improvement of eGFR over placebo in two independent Phase 2 double-blind placebo-controlled studies in Europe and U.S.



Effect size substantially larger in diabetes population vs. non-diabetes population



Clearly differentiated profile with >70% patients showing improvement or stabilization of eGFR in diabetes subgroup

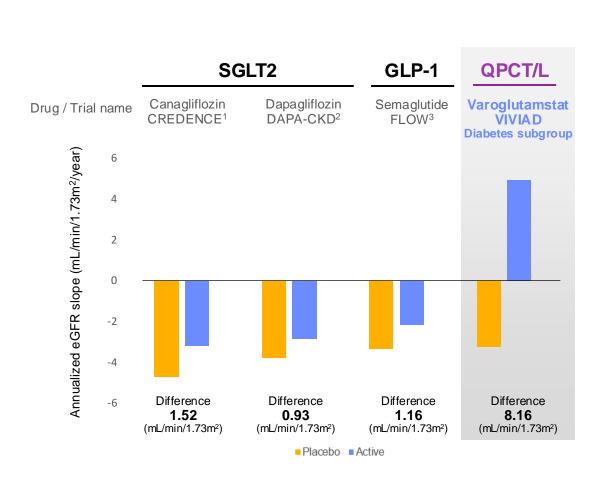


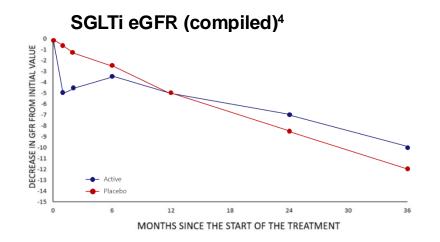
Excellent safety profile consistent across two years of study duration



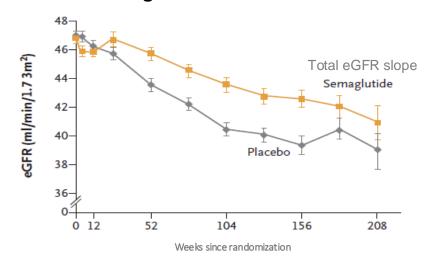
MOA and safety make varoglutamstat suitable for treatment on top of SOC and potential combinations with other therapeutics

Outstanding commercial potential: Currently available, highly successful medicines only slow disease progression in DKD



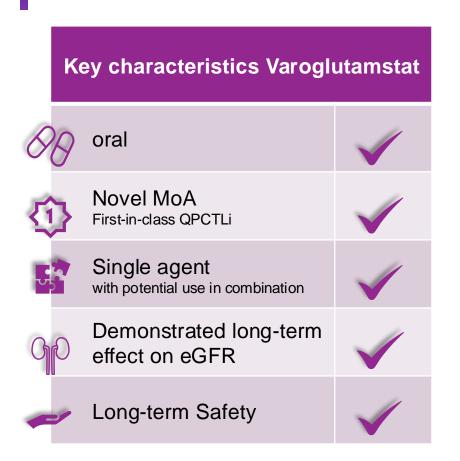


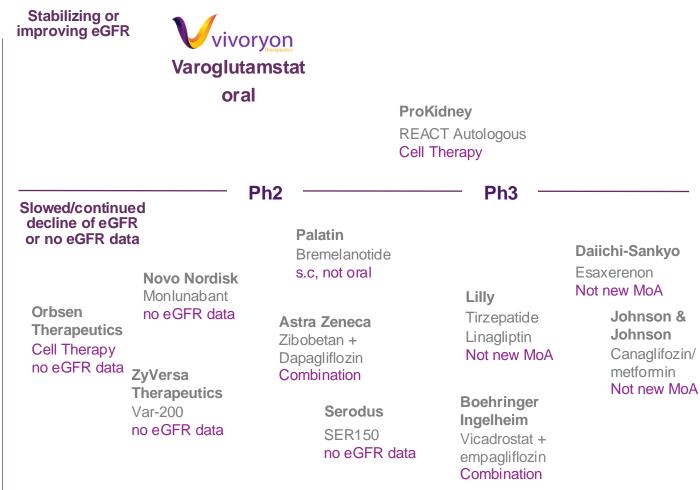
Semaglutide FLOW trial





Vivoryon's varoglutamstat is well-positioned in competitive landscape





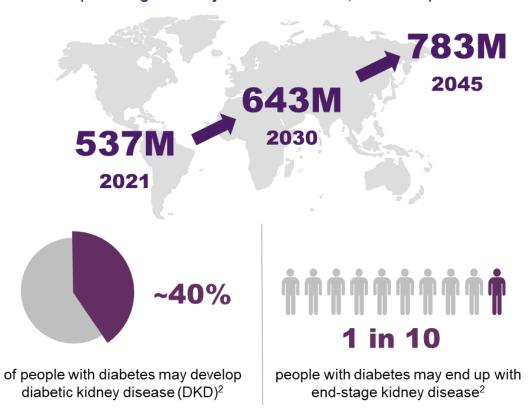
Currently marketed standard of care therapeutics including RAASi, SGLT-2i, GLP-1 RA, MRA show slowing but no improvement of eGFR

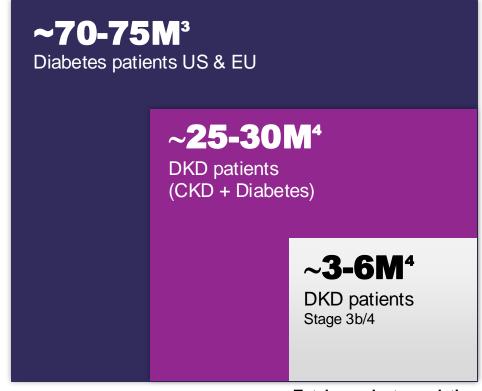


Initial target market represents an attractive patient opportunity with potential label expansion to earlier stages of DKD / CKD

Diabetes is a significant and growing global challenge

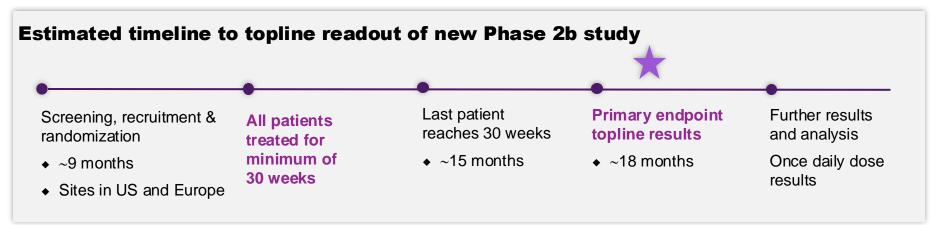
(adults aged 20-79 years with diabetes, worldwide)1





Total prevalent population

Double-blind placebo-controlled Phase 2b study¹ in patients with T2DM and CKD stages 3b and worse on top of standard of care (SoC)



Persistent albuminuria categories Description and range					
Normal to	Moderately	Severely			
mildly	increased	increased			
increased					
<30mg/g	30 - 300mg/g	>300mg/g			
<3mg/mmol	3-30mg/mmol	>30mg/mmol			
A1	A2	A3			

Primary Objective:

Investigate the efficacy and safety of varoglutamstat on kidney function in patients with T2DM and CKD 3b and worse

Secondary Objectives

Explore the efficacy of a once daily dose of varoglutamstat

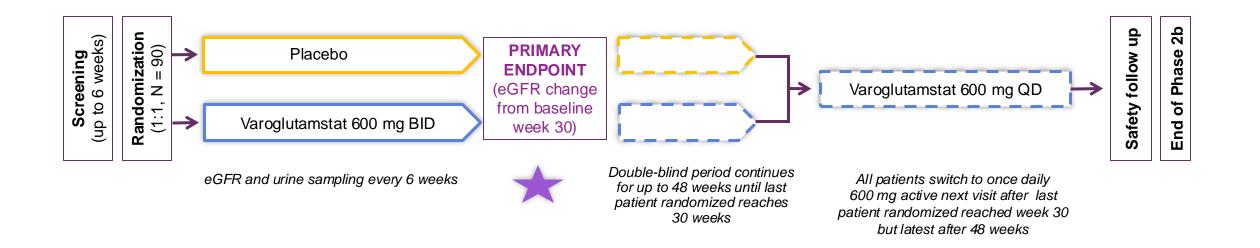
Generate further evidence of the mechanism of action

Generate data on the effect of varoglutamstat on frequently concomitantly affected organs in T2DM patients: liver, vasculature, bodyweight

				A1	A2	A3	
ription	>90	Normal and high	Stage 1	No CKD in absence			
GFR categories (mL/min/1.73m2) range and description	60 - 89	Mild decrease related to normal age range	Stage 2	of markers of kidney damage			
73m2) rang	45 - 59	Mild - moderate reduction	Stage 3a			(√)	Worsening
nL/min/1.7	30 - 44	Moderate - severe reduction	Stage 3b		✓	✓	Wors
egories (r	15 - 29	Severe reduction	Stage 4		✓	√	
GFR cat	< 15	Kidney failure	Stage 5				★
	Worsening						



Draft trial design based on robust data from VIVA-MIND and Phase 2 meta-analysis



Patient characteristics

 T2DM patients with Stage 3b+ CKD; all patients on standard of care medicines (SoC)

Endpoints

- Primary: eGFR change from baseline to last visit
- Secondary: UACR (albuminuria)
- Exploratory: Inflammatory, metabolic and fibrotic biomarkers liver transaminases, liver ultrasound (fibroscan)

Stratification

- By CKD severity
- Patients with SGLT-2 versus no SGLT-2
- Patients with GLP-1 versus without GLP-1



Pipeline focused on kidney disorders and inflammatory/fibrotic diseases

	Program	Approach	Discovery	Preclinical	Phase 1	Phase 2	Phase 3	Status
	DKD (Varoglutamstat/PQ912)	SMI QPCT/L	POC in VIVI	4D & VIVA-MIN	ID results			Preparing for Phase 2b DKD study
tory/fibrosis	Kidney orphan diseases (Varoglutamstat/PQ912)	SMI QPCT/L			Pre-IND			Pre-clinical orphan disease models
Inflammatory/fibrosis		SMI QPCT/L			Pre-IND			
	Fibrotic indications (NCE)	SMI Meprin			Research progr	ram		
sease	Varoglutamstat (PQ912)	SMI QPCT/L						AD program: discontinued after negative topline data March 2024 (VIVIAD) & December 2024 (VIVA-MIND)
ner's dis	Varoglutamstat (SIM0408, PQ912)	SMI QPCT/L		al in China				Partnered with Simcere in Greater China; under evaluation
Alzheir	PBD-C06	mAb N3pE amyloid			Pre-IND			Partnered with Simcere in Greater China; under evaluation

QPCTL inhibitors have a large market potential: Development opportunities across a range of diseases driven by underlying inflammation / fibrosis

DKD / CKD / earlier stages

Replication of a sustained improvement of kidney function in two independent Phase 2 studies¹

Initial focus on stage 3b/4 DKD given high unmet need and large effect in diabetes subgroup

Opportunity to expand market potential by moving into earlier and later stage DKD / CKD

Rare kidney diseases

e.g. Alport / Fabry disease

Novel mode of action, effect on inflammatory markers and observed effect on kidney function holds promise for QPCTL inhibitors in certain rare diseases

Disorders progressing through inflammation & fibrosis

e.g. NAFLD

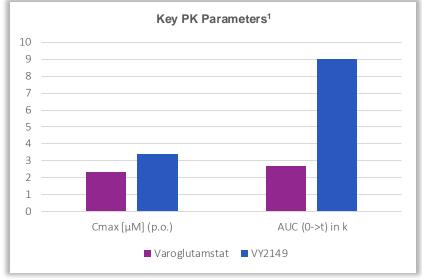
NAFLD is the most prevalent form of liver disease which may advance to metabolic dysfunction-associated steatohepatitis ("MASH") and cirrhosis

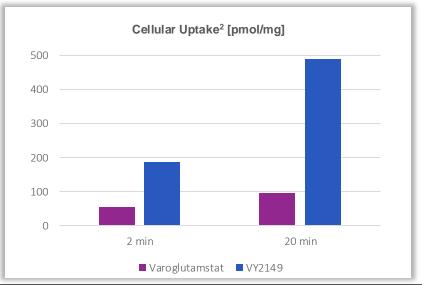
In vivo proof of concept in NAFLD mice²



New development compound VY2149 shows improved cellular uptake, PK profile and superior outcomes in kidney animal studies

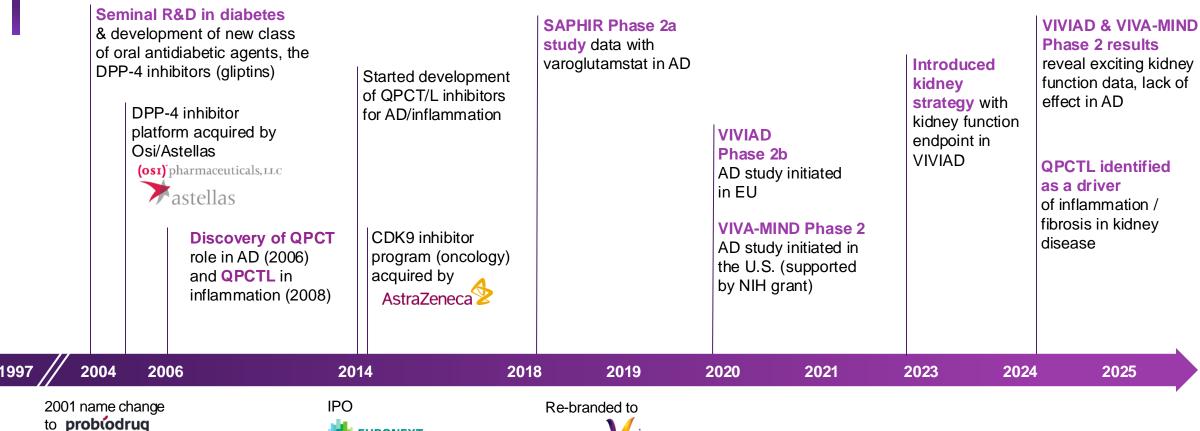
- Higher intracellular QPCTL inhibition translates to better activity, lower doses and the opportunity for once daily dosing
- Pre-clinical stage follow-on candidate VY2149, has shown improved molecular properties including
 - Improved peak concentration (Cmax) of VY2149 compared to varoglutamstat at comparable bioavailability upon oral dosing
 - Markedly increased overall drug exposure (AUC)
 - Significantly higher passive uptake into cells
- Assessment of once daily dosing for VY2149 in an animal model has shown strong effects on eGFR, creatinine, cystatin C levels and α-SMA levels and collagens







Vivoryon: A history of groundbreaking discoveries and developments



Company founded as **ProBioTec**

EURONEXT Amsterdam

Vvivorvon

Funding:

private placements of ~EUR 51m; USD 15m NIH grant for U.S. clinical development

Funding:

EUR 61m (plus EUR 15m option) raised in private placements



A trusted company: Senior management team with a strong track record

Executive Directors



Frank Weber, MD
Chief Executive Officer





Anne Doering, CFA
Chief Financial Officer

BIONTECH

Merck





Michael Schaeffer, PhD
Chief Business Officer





Non-executive Directors

Erich Platzer, MD, PhD
Chairman of the Board

Charlotte Lohmann

Claudia Riedl, PhD Chair Audit Committee Samir Shah, MD

Decades of collective experience in biopharma industry, e.g.:

First approved drug in pulmonary fibrosis

Successful development of biomarker driven oncology & diabetes programs

M&A and business development **expertise** from transactions with large biopharma

Know-how in life science research & development, biophysical and structure-based drug discovery

Strong financial, capital markets and legal **experience**



Vivoryon: Poised to improve kidney health with varoglutamstat's novel mechanism of action and breakthrough clinical trial results



Addressing unmet needs in areas of high commercial potential

Mission is to improve kidney health and ultimately reduce rate of transplant / dialysis in DKD/CKD/other potential indications



Unique oral asset with MOA targeting inflammation

Developed first in class oral **QPCTL inhibitor**; only one in clinic to show **improvement in kidney function** in elderly population¹



Compelling Phase 2 results replicated in two independent studies

Unprecedently large and sustainable improvement in kidney function, especially in 'diabetes' subgroup; large long-term safety data base



Actionable, riskcontained plan for Phase 2b trial in DKD²

Next steps in target population founded on statistical insights from robust, long-term
Phase 2 data

Extensive intellectual property portfolio^{3;} pipeline of additional early-stage QPCTL inhibitors; experienced management team with track record in inflammation and business development



