



Bettering the Lives of  
People Impacted by  
Kidney Disease

**R&D Day 2026**

April 2, 2026

# Cautionary note on forward-looking statements

Statements in this presentation regarding Akebia Therapeutics, Inc.'s ("Akebia's") strategy, plans, prospects, expectations, beliefs, intentions and goals are forward-looking statements within the meaning of the U.S. Private Securities Litigation Reform Act of 1995, as amended, and include, but are not limited to, statements regarding: Akebia's plans, strategies and prospects for its business; Akebia's plans with respect to its U.S. commercial launch of Vafseo<sup>®</sup>, including the potential U.S. market opportunity; Akebia's plans for Vafseo to become standard of care for treatment of anemia due to CKD in dialysis, including its ability to build on the body of evidence demonstrating Vafseo's value potential, and progress towards that goal; Akebia's expectations and beliefs about demand for Vafseo, including the number of patients with access to Vafseo and the focus of dialysis organizations; Akebia's beliefs with respect to patient dosing demand for Vafseo in 2026; Akebia's plans and expectations with respect to publication of additional analyses of INNO2VATE data; Akebia's plans and expectations with respect to the VOICE trial, including the timing of top-line data and potential to demonstrate favorable outcomes in the composite of all-cause mortality and hospitalization in patients treated with vadadustat compared to ESA; Akebia's plans and expectations with respect to the VOCAL trial, including timing of top-line data; Akebia's beliefs and expectations regarding the mechanism of action of its technologies' and ability to address the biological need of certain diseases; Akebia's plans and expectations with respect to praliguat and the Phase 2 trial, including to assess the use of praliguat in other rare podocytopathies, the number of patients to be enrolled in the trial, its potential for successful development and regulatory path, and expected patient demand and annualized cost of care; Akebia's plans and expectations with respect to AKB-097, including the timing of initiation of, and initial data from, an open label Phase 2 basket study and the indications to be evaluated, other potential indications for consideration, its potential for pipeline in a product, its potential to achieve opportunities to address unmet need and limitations of current complement inhibitors and to become the standard of care in multiple rare kidney diseases alone or in combination with other therapies, and expected patient demand and annualized cost of care; and Akebia's plans and expectations with respect to AKB-9090, including the timing of initiation of, and top-line data from, a Phase 1 trial and the indication to be evaluated, and expected patient demand and annualized cost of care.

The terms "intend," "believe," "plan," "goal," "potential," "anticipate," "estimate," "expect," "future," "will," "continue," "could", derivatives of these words, and similar references are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Actual results, performance or experience may differ materially from those expressed or implied by any forward-looking statement as a result of various risks, uncertainties and other factors, including, but not limited to, risks associated with: the potential therapeutic benefits, safety profile, and effectiveness of Vafseo and Akebia's development candidates; the results of preclinical and clinical research; Akebia's ability to initiate and enroll patients in its clinical trials; decisions made by health authorities, such as the FDA, with respect to regulatory filings and other interactions; the potential demand and market potential and acceptance of, as well as coverage and reimbursement related to Auryxia<sup>®</sup> and Vafseo<sup>®</sup>, including estimates regarding the potential market opportunity; the competitive landscape for Auryxia and Vafseo, including generic entrants and the timing thereof; the ability of Akebia to attract and retain qualified personnel; Akebia's ability to achieve and maintain profitability and to maintain operating expenses consistent with its operating plan; manufacturing, supply chain and quality matters and any recalls, write-downs, impairments or other related consequences or potential consequences; early termination of any of Akebia's collaborations; and changes in the geopolitical environment and uncertainty surrounding U.S. trade policy on tariffs. Other risks and uncertainties include those identified under the heading "Risk Factors" in Akebia's Quarterly Report on Form 10-K for the year ended December 31, 2025, and other filings that Akebia may make with the U.S. Securities and Exchange Commission in the future. These forward-looking statements (except as otherwise noted) speak only as of the date of this presentation, and, except as required by law, Akebia does not undertake, and specifically disclaims, any obligation to update any forward-looking statements contained in this presentation.

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# Agenda

## Opening Remarks

**John P. Butler**

President and CEO, Akebia Therapeutics

## Praliguat

Soluble Guanylate Cyclase (sGC) Stimulator

**Steven Burke, MD**

Head of R&D and Chief Medical Officer, Akebia Therapeutics

**James A. Tumlin, MD**

Chief Executive Officer, NephroNet

## AKB-097

Anti-C3d-Factor H Fusion Protein  
Complement Inhibitor

**Steven Burke, MD**

**V. Michael Holers, MD**

Professor, Medicine-Rheumatology, University of Colorado

**Jonathan Barratt, MD, PhD, FRCP**

Mayer Professor of Renal Medicine, University of Leicester

## AKB-9090

HIF-PH Inhibitor

**Steven Burke, MD**

## Q&A Panel

## Closing Remarks

**John P. Butler**

# Corporate strategy



**Our purpose is to better the lives of people impacted by kidney disease**

**Drive Vafseo to be  
standard of care**

for the treatment of anemia  
due to CKD for patients on  
dialysis in the U.S

**Build on our  
commitment to those  
impacted by kidney  
disease**

**Create a future for  
Akebia beyond kidney  
disease**

# Drive Vafseo to be standard of care



Oral treatment for anemia due to CKD in dialysis launched in January 2025

2025 Net Product Revenues  
**\$227.3M**



Oral phosphate binder used to treat hyperphosphatemia and anemia in patients with CKD

## Vafseo Set Up for Growth in a \$1 billion market in 2026 and Beyond

### Access expanded and revenue base broadening

- ~290,000 patients now have prescribing access to Vafseo
- Higher percentage of new patient starts from clinics outside of US Renal Care

### First refill adherence improving

- ~ 87% first refill rates among subset of patients on an observed dosing regimen (up from ~75% in first nine months of 2025)

### Building body of clinical evidence

- Win statistics analysis of INNO<sub>2</sub>VATE data pending publication in *JASN*
- Data from VOCAL trial expected by end of 2026
- Data from VOICE trial expected in early 2027

# Leveraging our expertise to develop a robust kidney disease pipeline

	ASSET	MECHANISM	INDICATION	Preclinical	Phase I	Phase 2	Phase 3
<b>Kidney</b>	<b>Praliciguat</b>	sGC Stimulator	FSGS				
	<b>AKB-097 (ebribafusp alfa)</b>	Anti-C3d-Factor H Fusion Protein Complement Inhibitor	IgAN				
			LN				
			C3G				
<b>AKB-9090</b>	HIF-PH Inhibitor	Cardiac Surgery-Associated AKI					
<b>Other disease areas</b>	<b>AKB-9090</b>	HIF-PH Inhibitor	ARDS				
	<b>AKB-10108</b>	HIF-PH Inhibitor	ROP				

# Targeting severe kidney diseases with high unmet need

## PRALICIGUAT

### FSGS

- Scarring (sclerosis) in parts (segmental) of some (focal) glomeruli, the kidney's filtering units<sup>1</sup>
- No approved treatment specifically for FSGS
- **Most common primary glomerular disease in patients with ESKD in the U.S.**<sup>1</sup>

## AKB-097

### IgAN

- Characterized by the accumulation of IgA antibodies in the kidneys<sup>2</sup>
- **Nearly half of patients remain at high risk of progression while receiving supportive care**<sup>3</sup>

### LN

- One of the most severe manifestations of SLE and can result in end-stage renal disease<sup>4</sup>
- **6x mortality risk increase vs general population**<sup>4</sup>

### C3G

- Caused by C3 protein deposits in the glomeruli<sup>5</sup>
- **Approximately 50% of adult patients progress to kidney failure within 10 years**<sup>5</sup>

## AKB-9090

### CS-associated AKI

- Results from impact on perfusion, hemolysis, inflammation, and oxygen delivery to kidneys<sup>6</sup>
- **Higher-morbidity and costly complications**<sup>6</sup>

<sup>1</sup>Sprangers et al Biomed Res Int. 2016;2016:4632768 <sup>2</sup>NIDDK; IgA Nephropathy <sup>3</sup>HCP Live, « Study Details Characteristics, Risk of Disease Progression in Patients with IgAN,» Nov. 16, 2023 <sup>4</sup>Hocaoğlu et al Arthritis Rheumatol. 2023 Apr;75(4):567-573 <sup>5</sup>Java et al Kidney Med. 2024 Nov 13;7(1):100928. <sup>6</sup>Scurt et al Kidney360. 2024 Jun 1;5(6):909-926.

ESKD is end stage kidney disease; SLE is systemic lupus erythematosus; CS is cardiac surgery

# Focus indications are multi-billion-dollar U.S. market opportunities<sup>7</sup>

## PRALICIGUAT

### FSGS

~40,000 patients<sup>2</sup>  
~\$120K/yr

## AKB-097

### IgAN

~126,000 patients<sup>3</sup>  
~\$120K-\$390K/yr

### LN

100,000 patients<sup>4,5</sup>  
~\$65K-\$155K/yr

### C3G

4,000 patients<sup>6</sup>  
~\$505K/yr

## AKB-9090

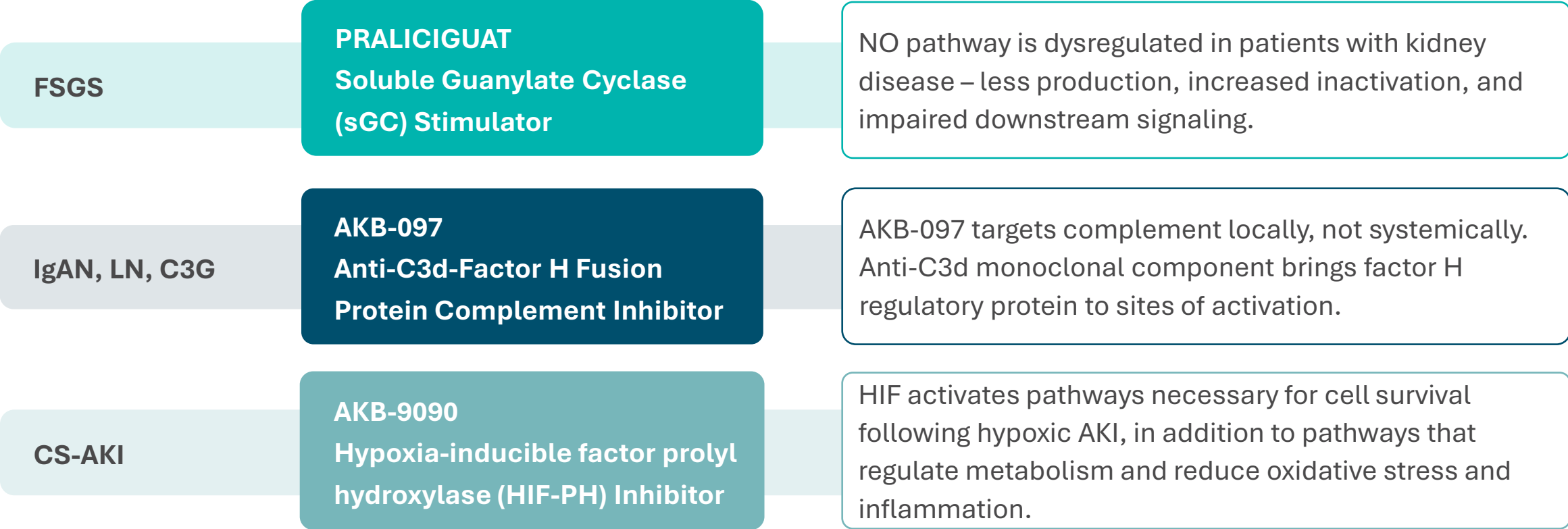
### CS-associated AKI

~120,000 patients<sup>7</sup>  
~\$20K/treatment

<sup>1</sup>Market opportunity derived from population and price range based on U.S. WAC reference pricing obtained from analyst research and/or company materials for the following products: FSGS (FILSPARI/sparsentan), IgAN (VOYXACT/sibeprenlimab), LN (LUPKYNIS /voclosporin), C3G (EMPAVELI/pegcetacoplan), AKI pricing is a company estimate due to absence of approved drugs <sup>2</sup>Nephcure Kidney International; FSGS <sup>3</sup>Evercore ISI, Travele Therapeutics, Inc. October 31, 2024 <sup>4</sup>MedScape; Lupus Nephritis <sup>5</sup>CDC; People with Lupus <sup>6</sup>Smith et al Nat Rev Nephrol. 2019 Mar;15(3):129-143. <sup>7</sup>Liu et al Oxid Med Cell Longev. 2021 Mar 9;2021:8873581.

# Matching our technologies to diseases where MOA is best suited to potentially address the biological need

## Differentiated MOAs targeting specific biological activities



# Introduction to presenters



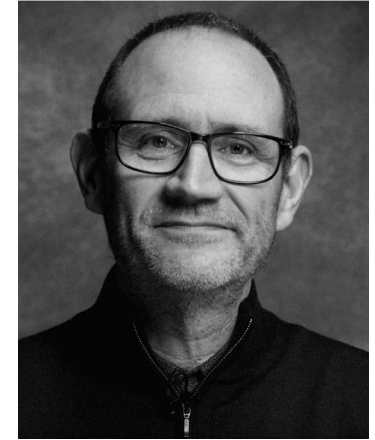
**Steven Burke, MD**  
Chief Medical Officer,  
Head of R&D  
Akebia Therapeutics



**James A. Tumlin, MD**  
Chief Executive Officer  
NephroNet



**V. Michael Holers, MD**  
Professor, Medicine-  
Rheumatology  
University of Colorado



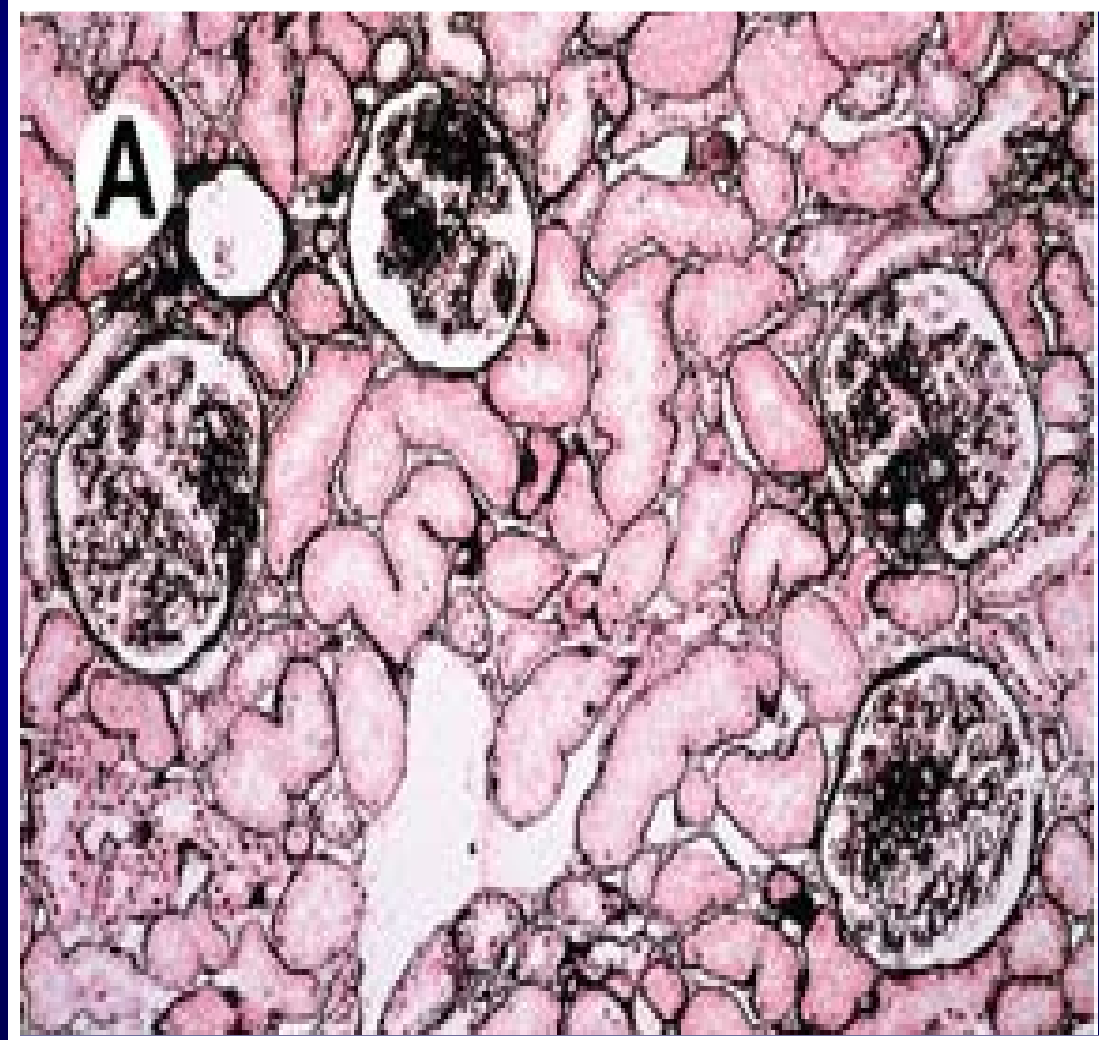
**Jonathan Barratt, MD,  
PhD, FRCP**  
Mayer Professor of  
Renal Medicine  
University of Leicester

# Praliciguat



# Focal Segmental Glomerulosclerosis (FSGS): Rare Disease with Limited Treatment Options-Significant Unmet Need

- FSGS is a descriptive phenotype of a glomerulopathy that is the product of multiple and varied pathologic mechanisms
- Prevalence of FSGS is growing; highest predilection among patients of African descent
- Identification of APOL-1 and other FSGS-associated genes offer the potential for more directed therapy in approximately 5-10% of FSGS
- Treatments for Non APOL-1 FSGS are limited





# Physiologic Contributors to Podocyte Dysfunction & Apoptosis in FSGS

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## Cytokines

TGF- $\alpha$  & TGF- $\beta$   
Type I Interferons

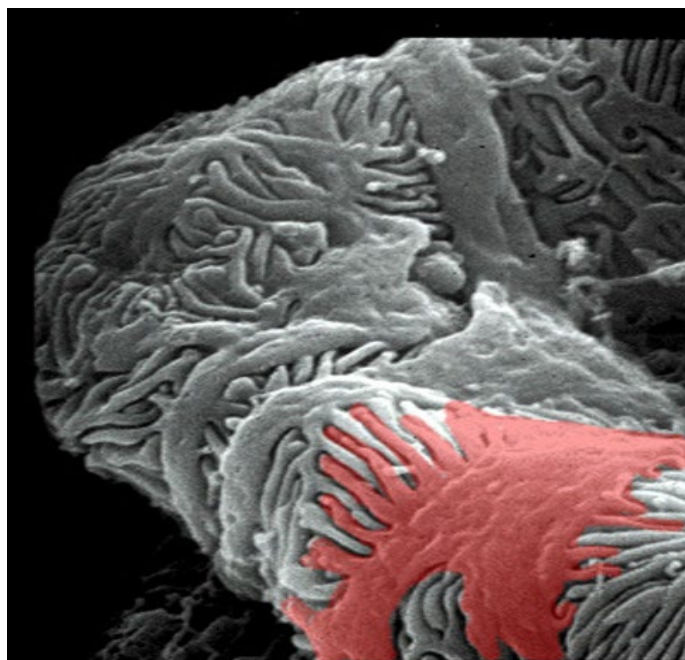
## Altered Genetics

Nephrin, Podocin,  
 $\alpha$ -actinin-4, TRPC6

Endothelin-1

Aldosterone

Ang-II



Impaired NO &  
VEGF Production

## Permeability

### Factors:

Cardiotrophin-Like  
Cytokine-1

## SuPAR

Soluble Urokinase  
Plasminogen  
Activator Receptor

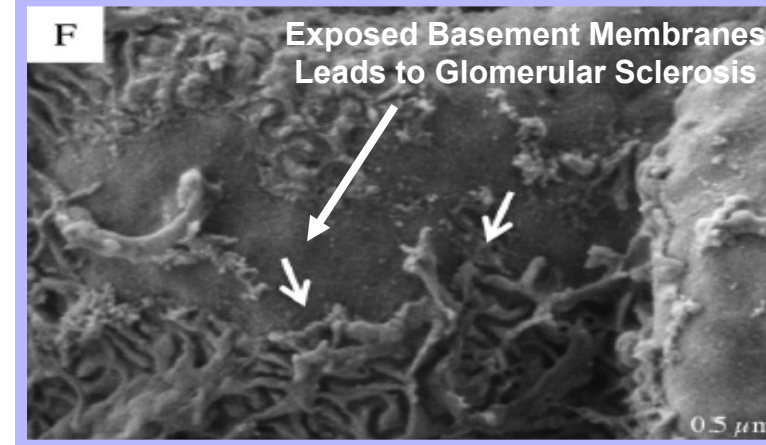
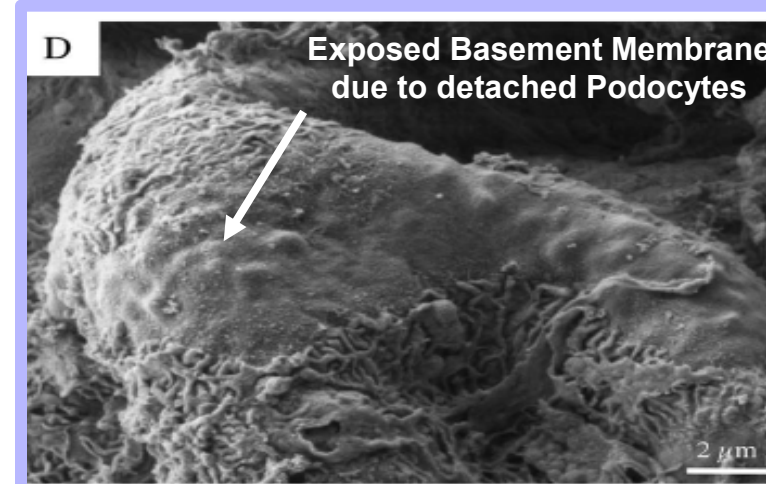
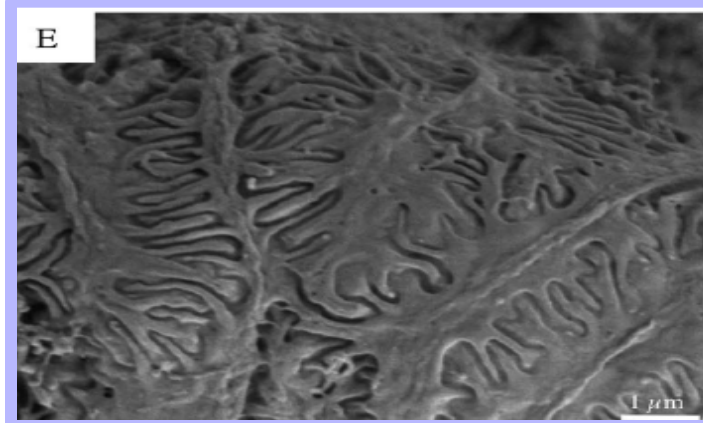
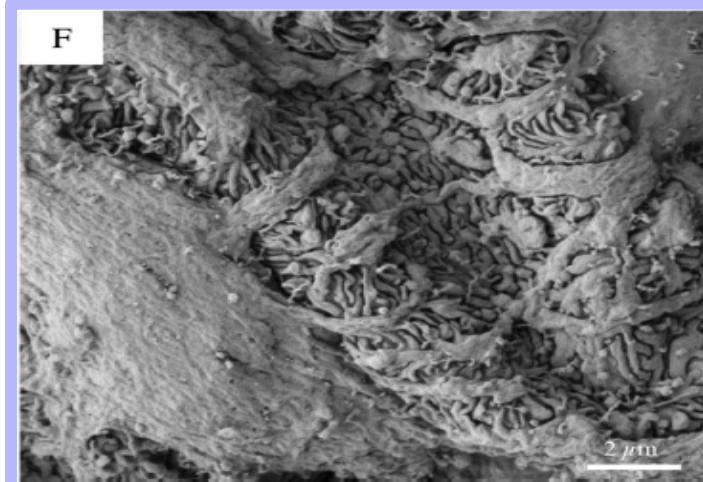
Reactive Oxygen

Species (ROS)

Oxidant Injury

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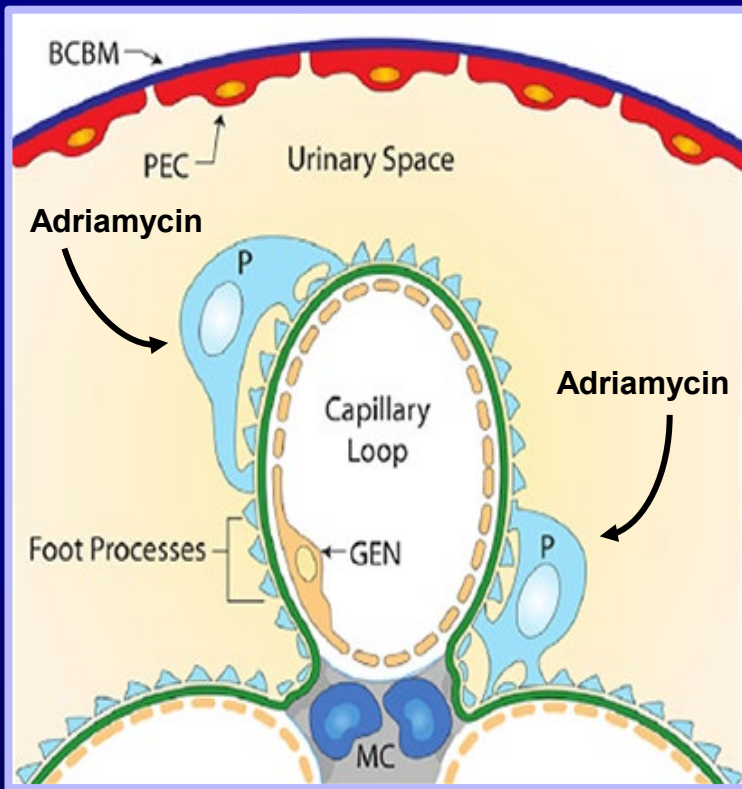
# Podocyte Detachment Leads to Exposed Capillary Basement Membranes: Contribute to Glomerular Sclerosis



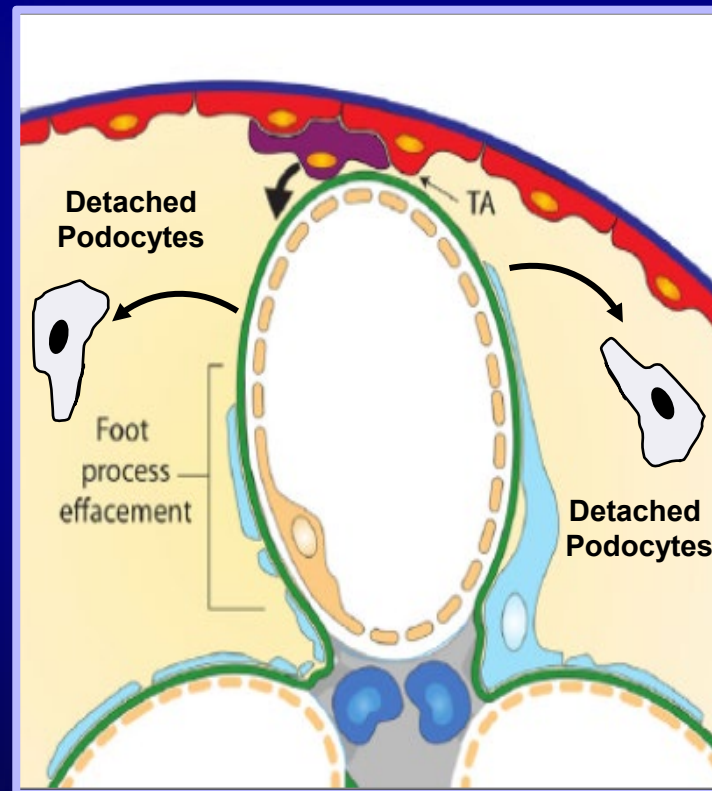


# Podocyte Injury: Progression from Injury to Detachment to Tuft Adhesion to Glomerulosclerosis

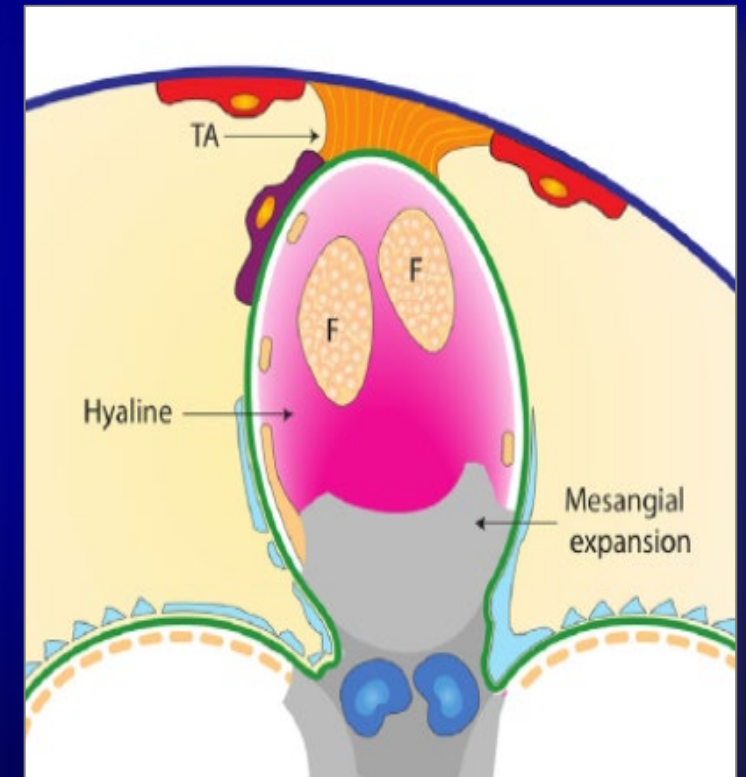
Normal Glomerular Capillary & Pre-Detached Adriamycin Injured Podocytes



Post Injury Podocyte Detachment: Foot Plate Effacement with Exposed Basement Membrane



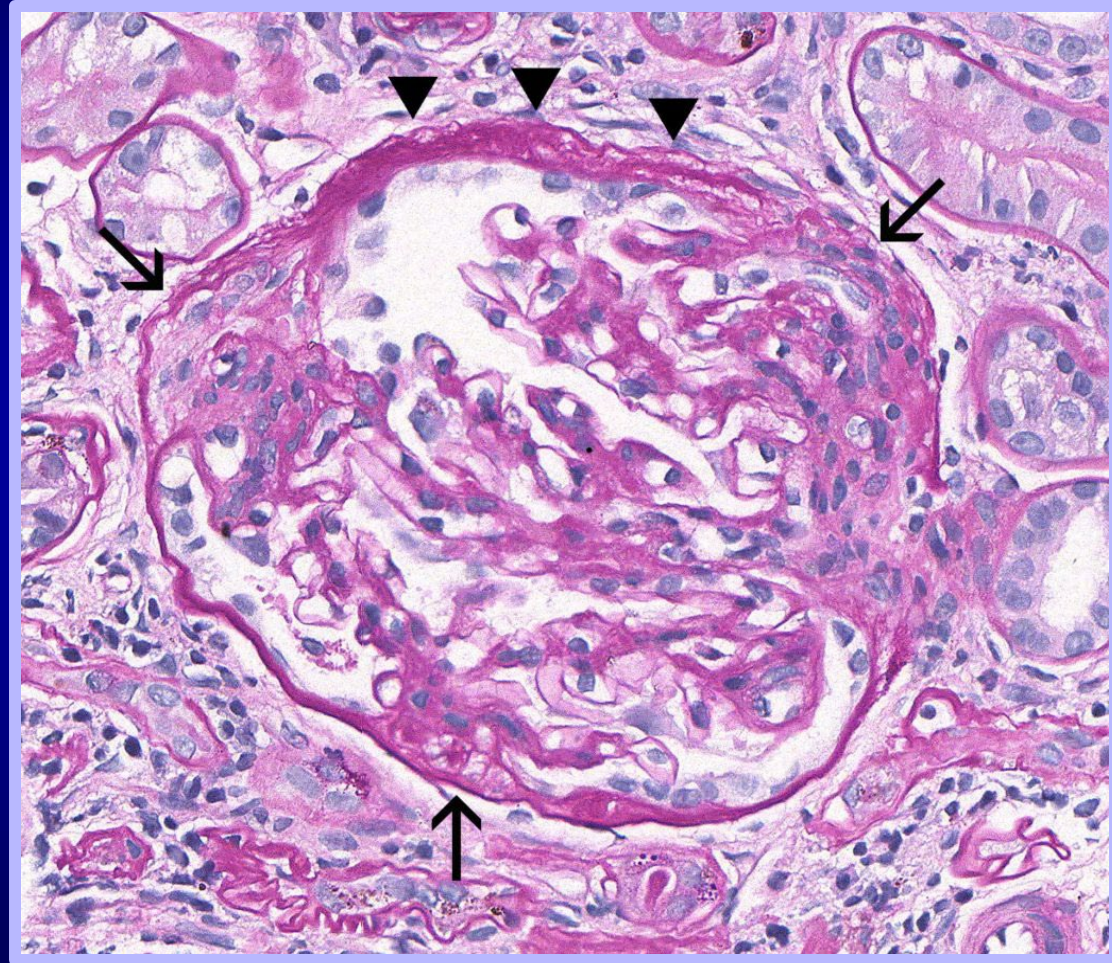
Glomerular Tuft Adherence to Bowman's Capsule. Initiation Glomerulosclerosis and Expansion Mesangial Matrix



# FSGS-NOS Histology: Tuft Adhesions

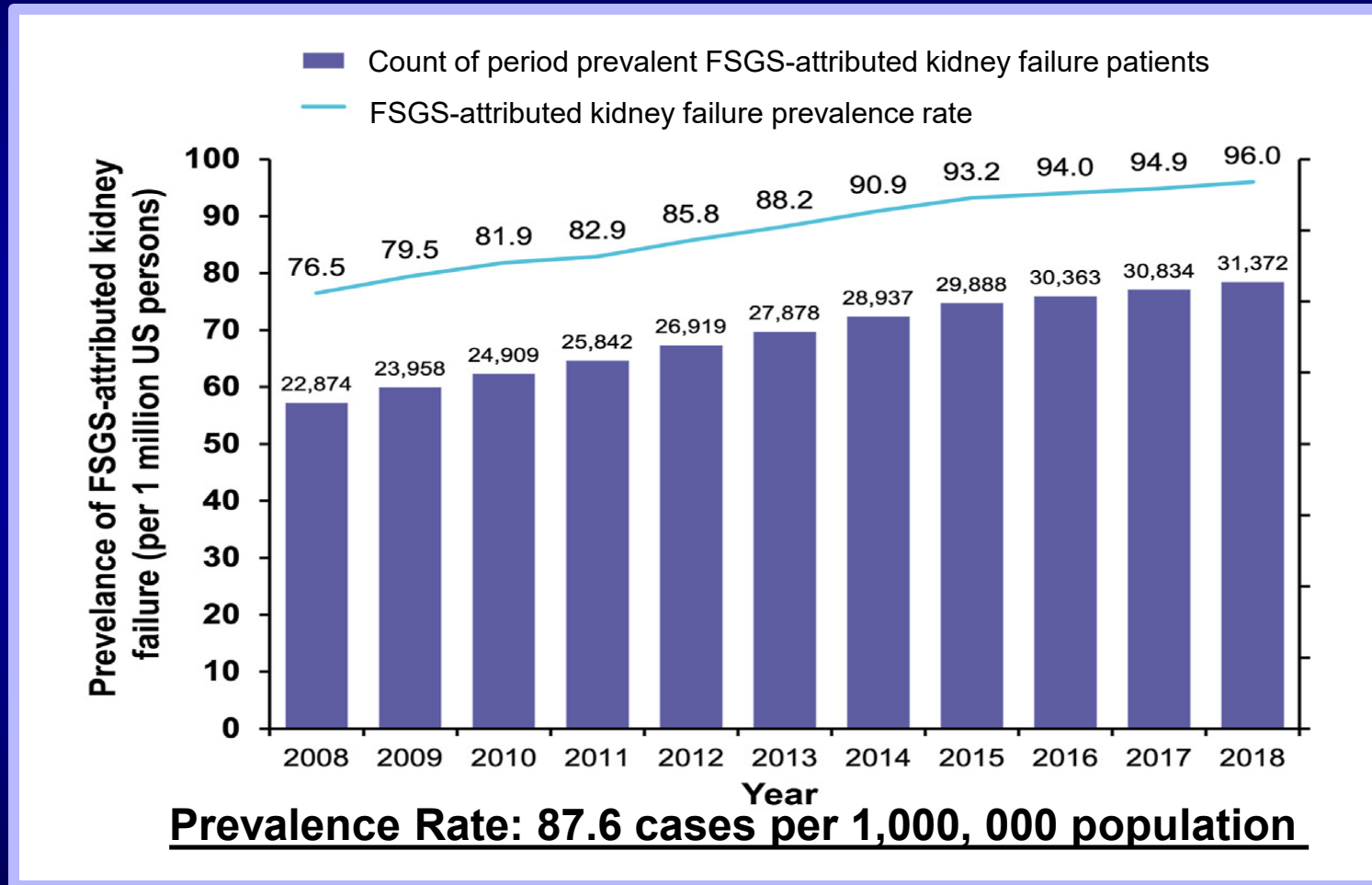
## Pathologic Features

- Segmental occlusion glomerular capillaries by accumulation of extracellular matrix proteins
- Adherence of Glomerular Tuft to Bowman's Capsule
- Hyalinosis: accumulation of eosinophilic, trichrome-red staining amorphous material beneath basement membrane
- Proximal tubular foam cells intracellular protein droplets



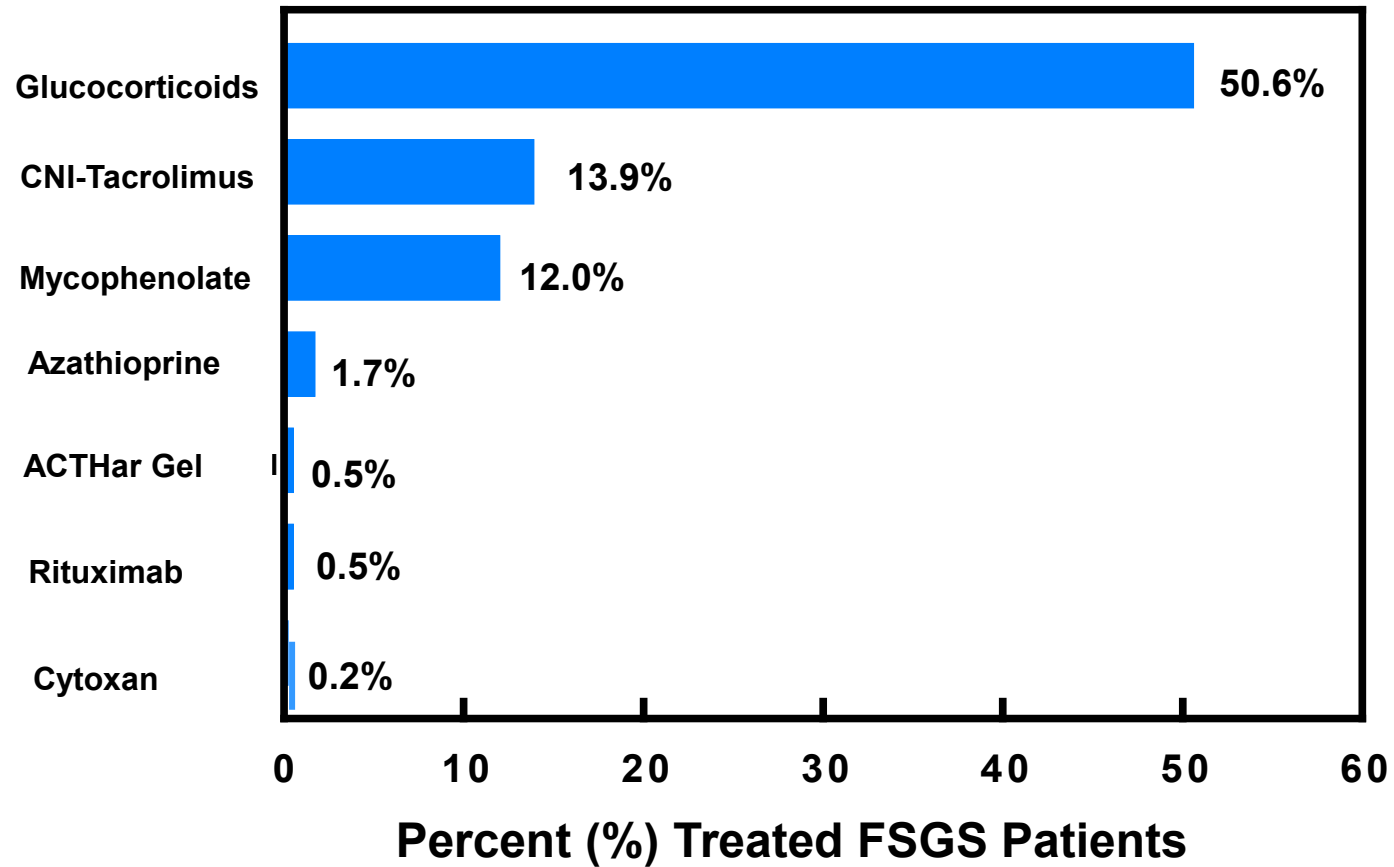


# Kidney Failure Attributed to Focal Segmental Glomerulosclerosis (FSGS): A USRDS Epidemiologic Analysis



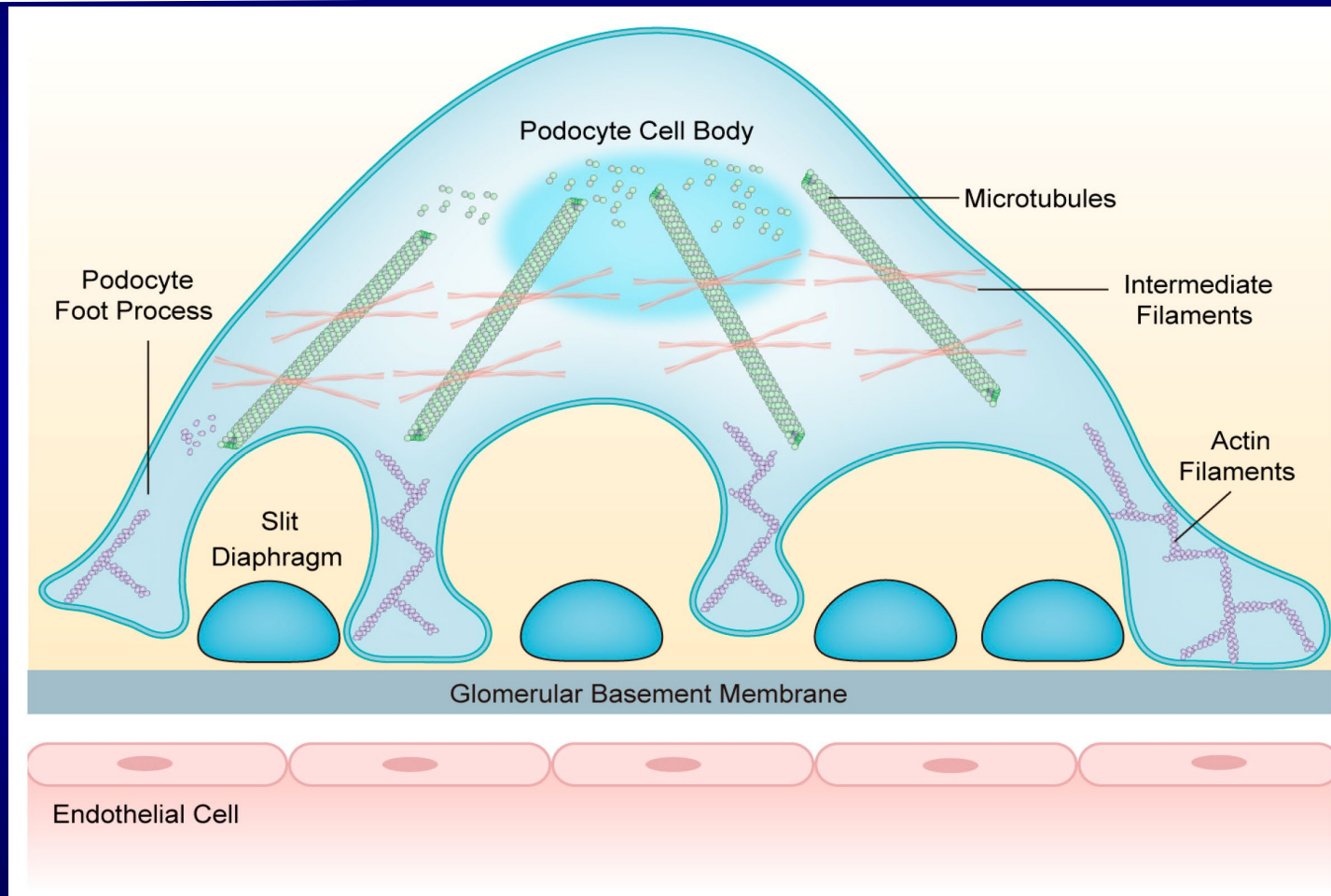


# Prescription Immunosuppressants Used for FSGS





# The Structure of Podocytes and the Network of Podocyte Cytoskeletons





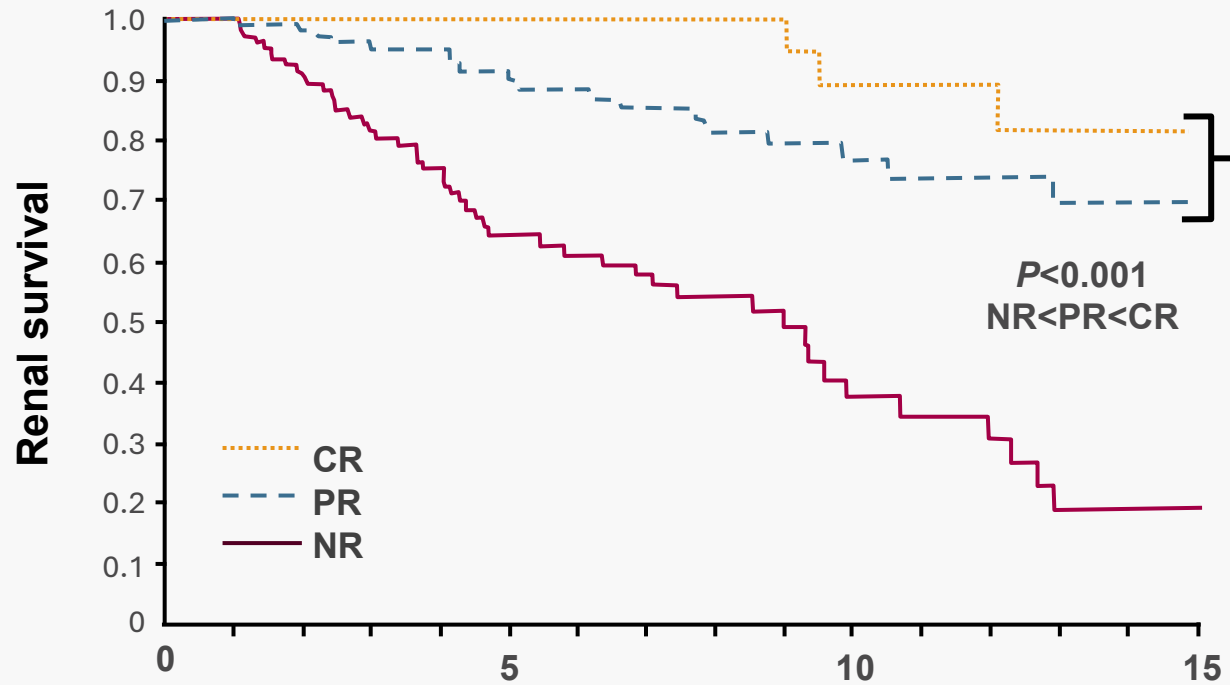
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# **Reduction in Urinary Protein Losses Is Universally Beneficial in FSGS**

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# Achieving Either Complete or Partial Remission of Proteinuria in FSGS Is Important For Improving Kidney Outcomes



**Achieving complete or partial remission of proteinuria in patients with primary FSGS is a valid therapeutic goal**

Number of patients assessed at follow-up:

Years	0	5	10	15
CR	102	67	33	12
PR	135	74	32	9
NR	106	34	9	4

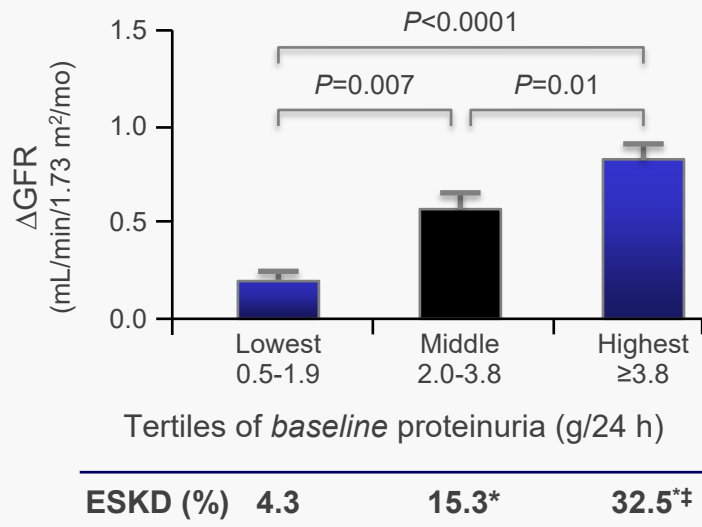
Study included 281 patients with primary FSGS from the Toronto Glomerulonephritis Registry. Patients had nephrotic-range proteinuria at some point during follow up; baseline proteinuria of 4.7 g/d; minimum of 12 months of follow up.

CR = complete remission: proteinuria  $\leq 300$  mg/d; NR = no remission; PR = partial remission: proteinuria  $< 3500$  mg/d plus a 50% reduction from peak value. Adapted with permission from Troyanov et al J Am Soc Nephrol. 2005 April;16(4):1061-1068.

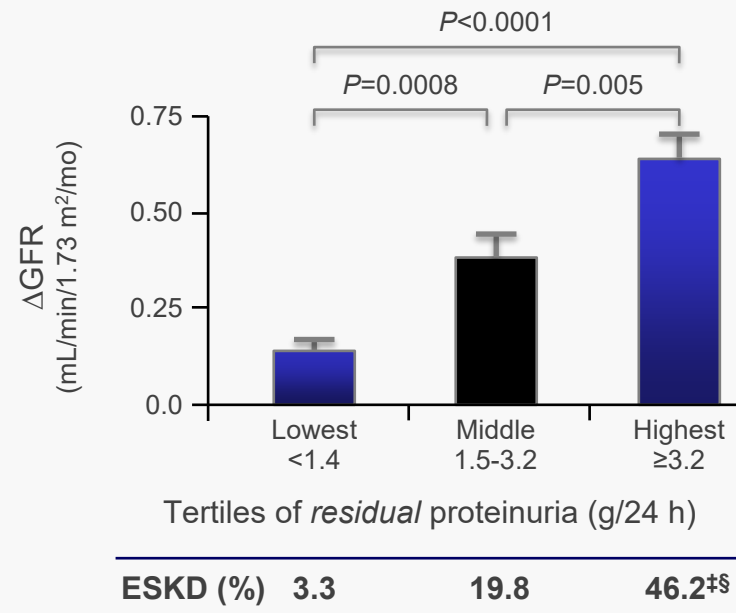


# There Is a Strong Association Between Proteinuria and Risk of Progression to ESKD

Proteinuria was the *only* baseline variable that correlated with the rate of GFR decline and progression to ESKD<sup>1,a</sup>



Short-term changes and residual proteinuria predicted long-term disease progression regardless of BP control and treatment<sup>1,2,b</sup>



A meta-analysis<sup>1,3</sup> of 1860 patients with chronic nephropathies concluded:

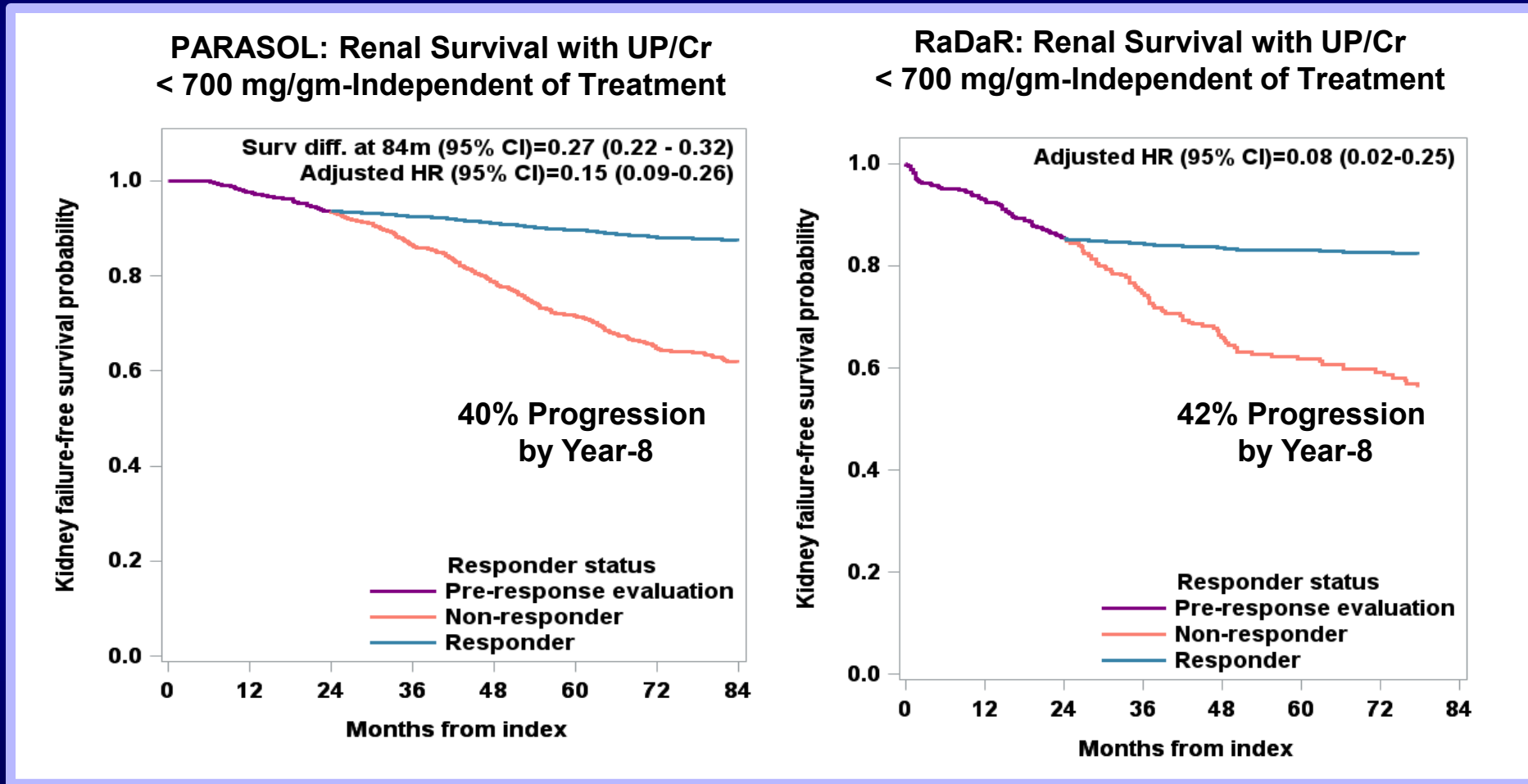
- *Proteinuria is an important modifiable risk factor to slow progression of disease*
- *Reduction of urine protein excretion should be the main goal of treatment*

a. Trial included 274 patients with nondiabetic chronic nephropathies. b. In a post hoc analysis of 273 patients from the Ramipril Efficacy in Nephropathy (REIN) trial.

\*P=0.01 vs lowest tertile; ‡P ≤0.0001 vs the middle and lowest tertiles; §P=0.002 vs the middle and lowest tertiles.



# Achieving UP/Cr Below 700 mg/gm Reduces Progression to ESKD: Results of the Parasol Study



Smith AR, et al. ASN 2024. Translational session. ESKD = end stage kidney disease; UP = urinary protein; CR = creatinine; mg/gm = milligram per gram

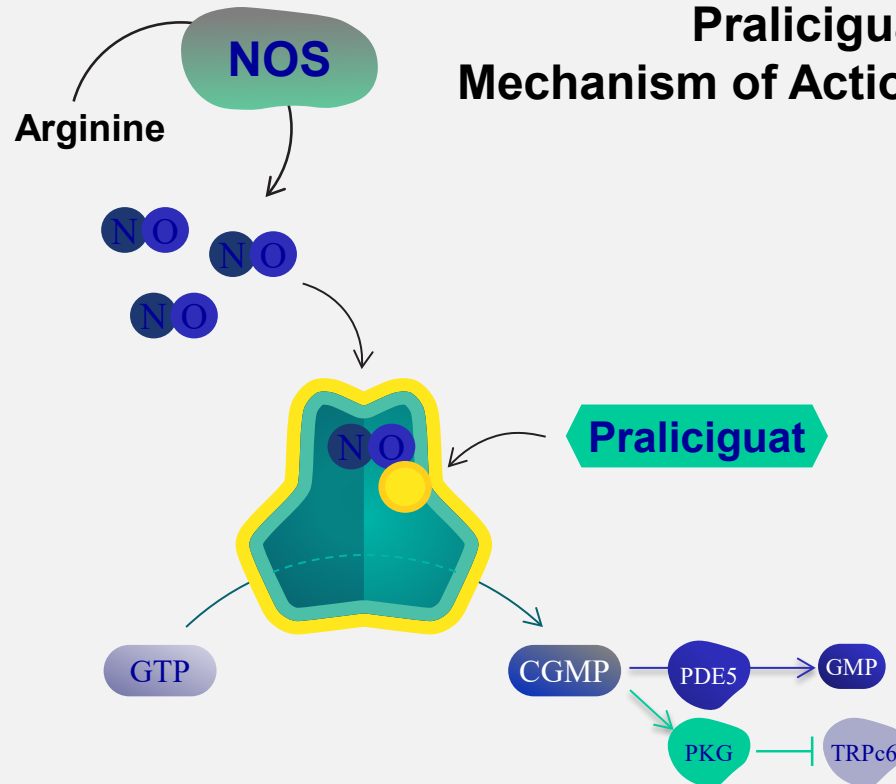


# Pralicyguat Augments Deficient NO-sGC-cGMP Signaling Pathways in Glomerular Podocytes

## Pralicyguat: Preclinical Studies

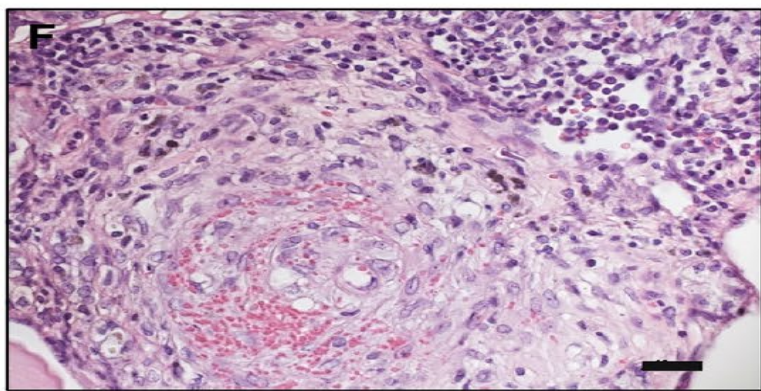
- Protamine sulfate-induced podocyte injury
- TNF $\alpha$ -induced inflammation and TGF- $\beta$  fibrosis in human proximal tubule cells ★
- DSS rat model of glomerulosclerosis
- Rat ZSF1 model of diabetic kidney disease
- Rat Unilateral Ureteral Obstruction (UUO) model
- Adriamycin mouse model of FSGS ★
- 5/6 Nephrectomy rat model of CKD ★

## Pralicyguat Mechanism of Action

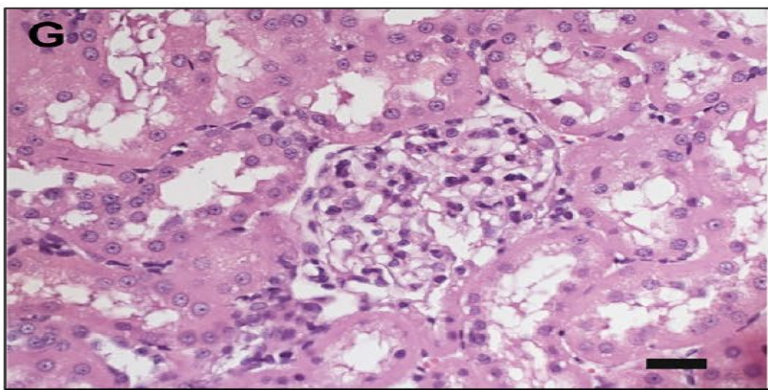




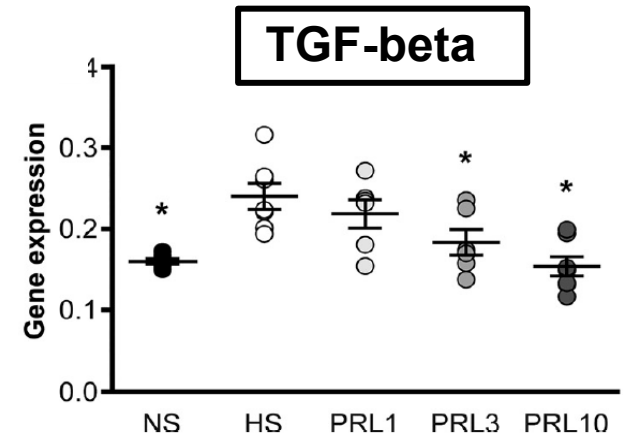
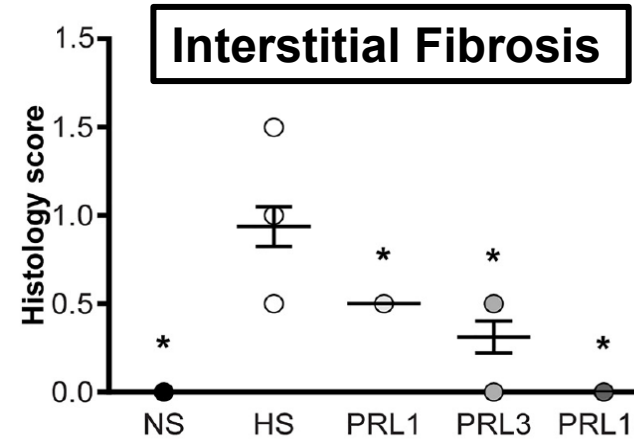
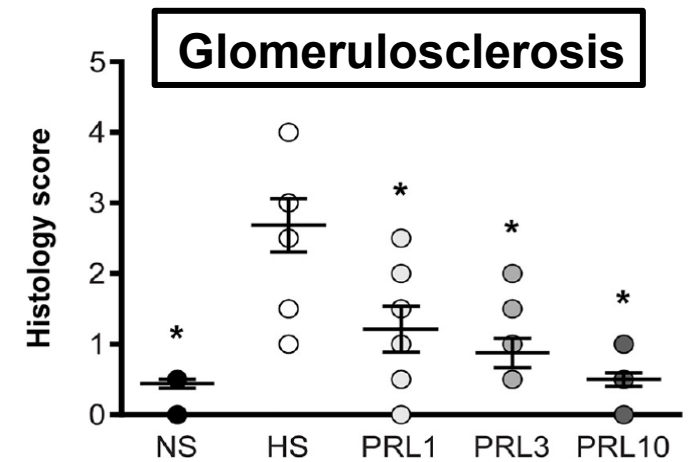
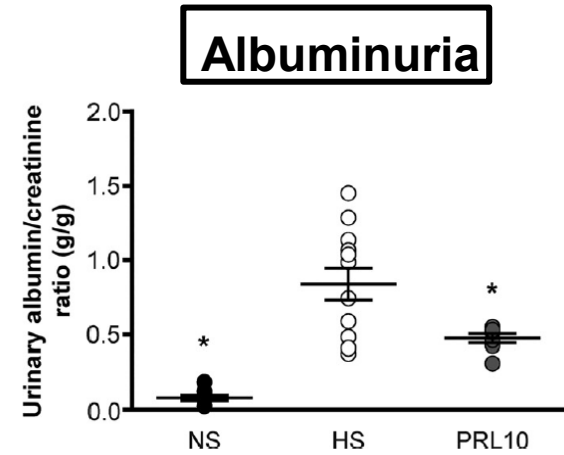
# Multi-Faceted Functions of Pralicyguat: Reduction in TGF-beta Dependent Glomerulosclerosis and Fibrosis in Hypertensive CKD



Untreated Animals

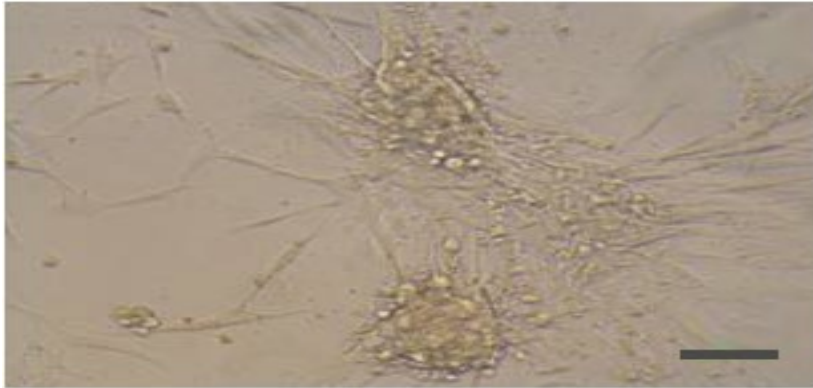


Pralicyguat 10 mg/kg/day

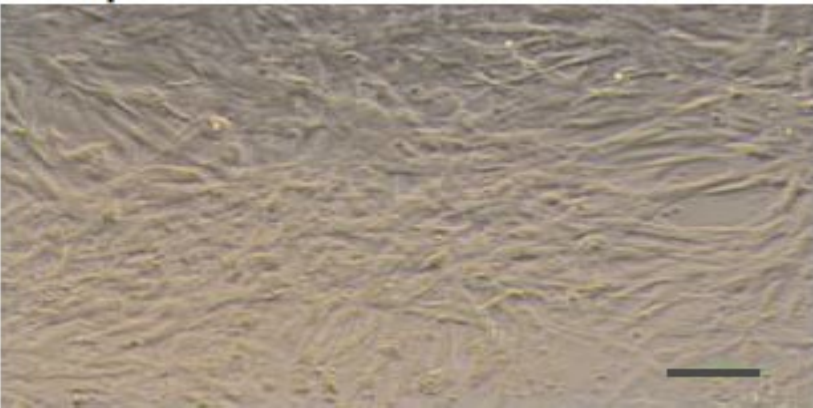


# Multi-Faceted Functions of Pralicyguat: Blocks TGF-beta Induced Apoptosis of Cultured Proximal Tubular Cells

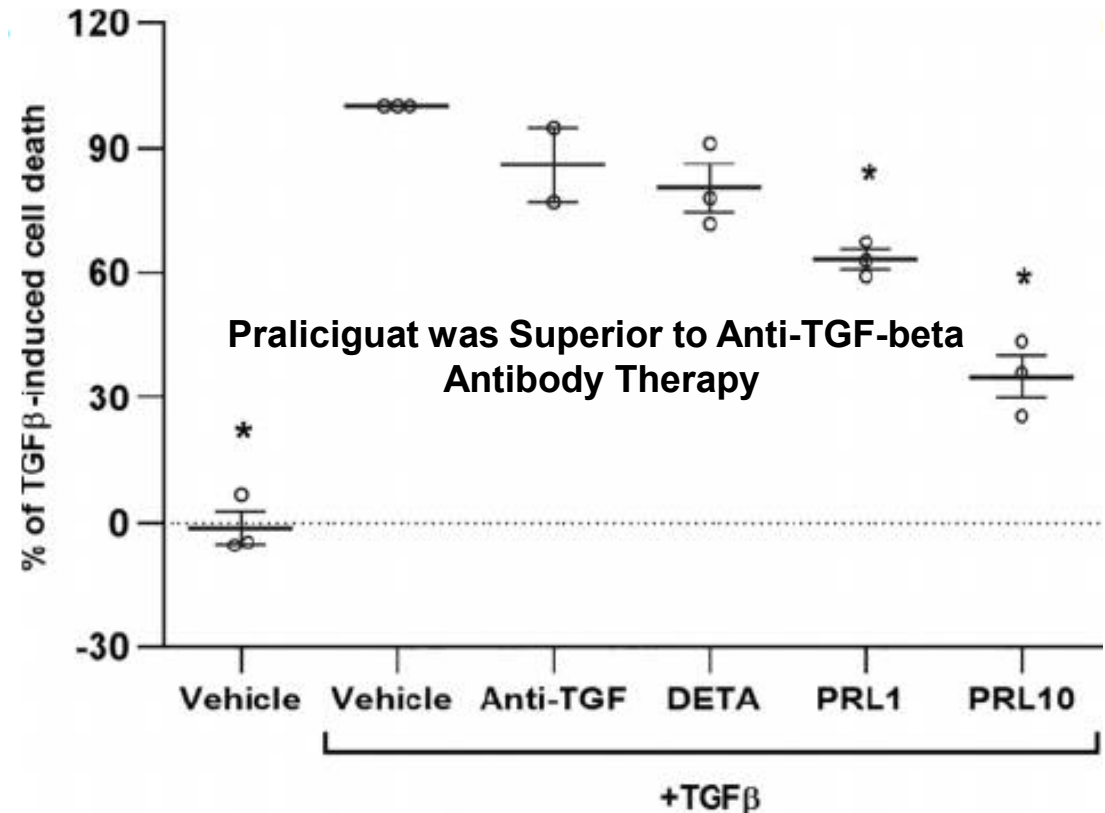
PTC Treated with TGF-beta



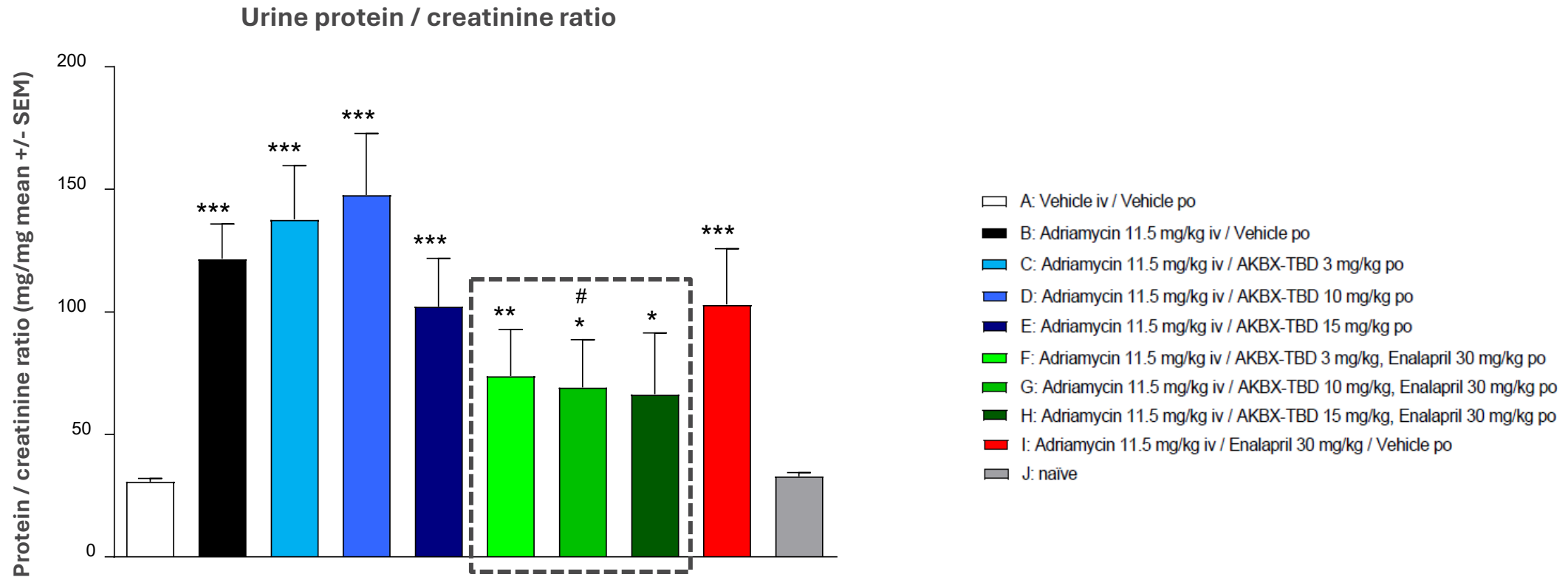
PTC Treated with TGF-beta + Pralicyguat 1  $\mu$ M



TGF-beta + Pralicyguat 1  $\mu$ M (PRL1) and 10  $\mu$ M (PRL10)

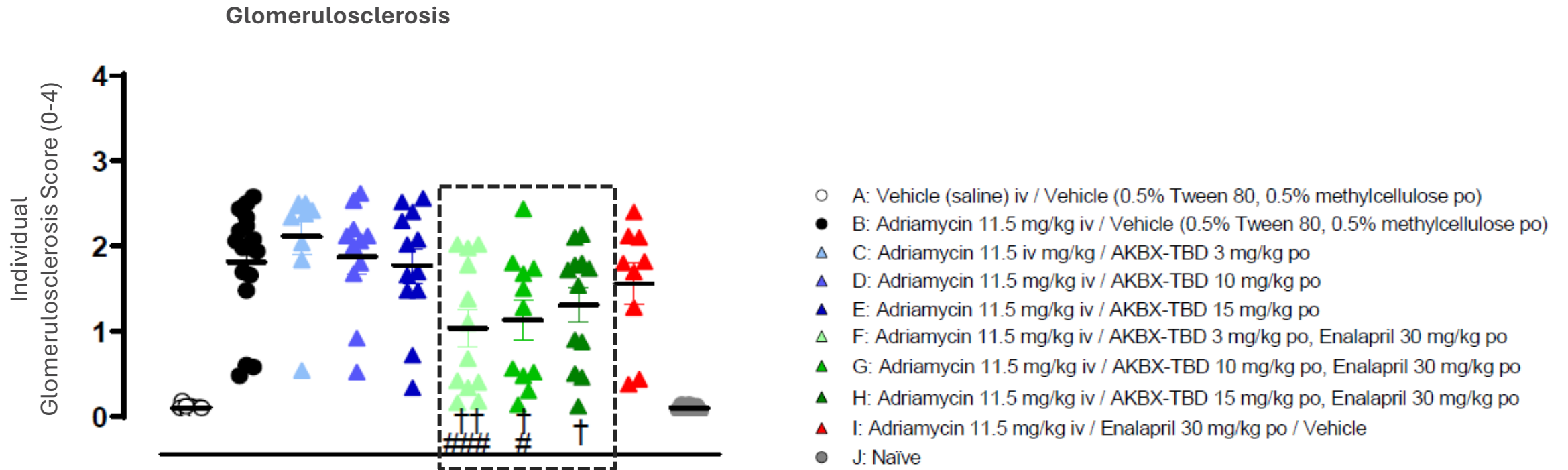


# Pralicyguat treatment on a background of enalapril reduced proteinuria in Adriamycin mouse model of FSGS<sup>1</sup>



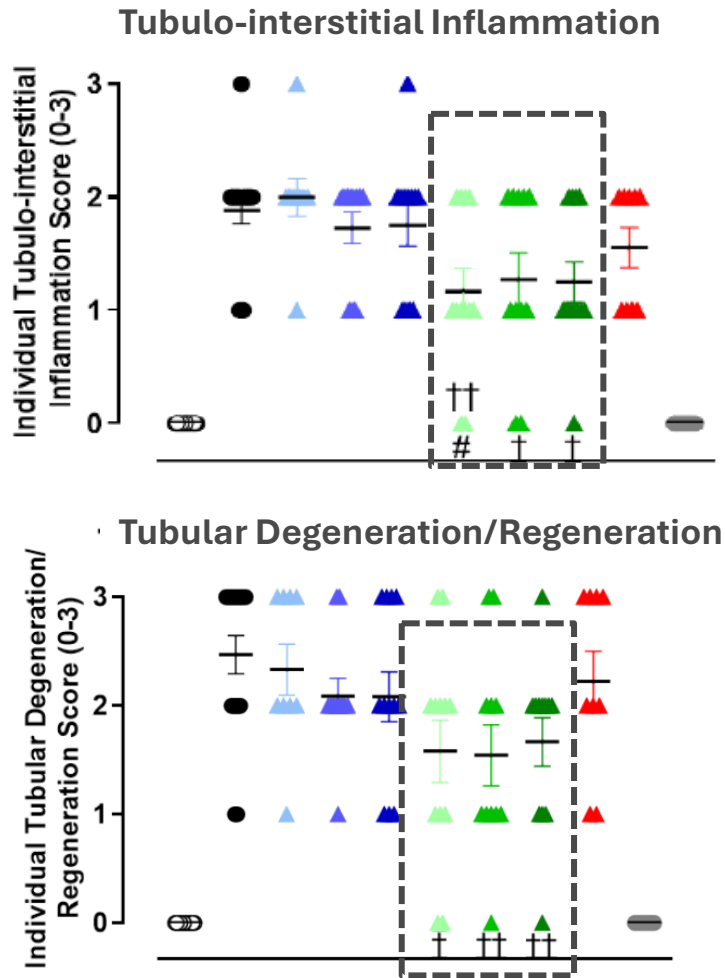
Significant differences versus vehicle: \*p<0.05, \*\*p<0.01, \*\*\*p<0.001.  
 Significant differences versus AKBX-TBD alone: #p<0.05, ##p<0.01

# Pralicyguat treatment on a background of enalapril reduced the glomerulosclerosis score in Adriamycin mouse model of FSGS<sup>1</sup>



Significant differences from the Adriamycin group are denoted by † $p < 0.05$ , †† $p < 0.01$ .  
Significant differences from the AKBX-TBD groups are denoted by # $p < 0.05$ , ## $p < 0.01$ .

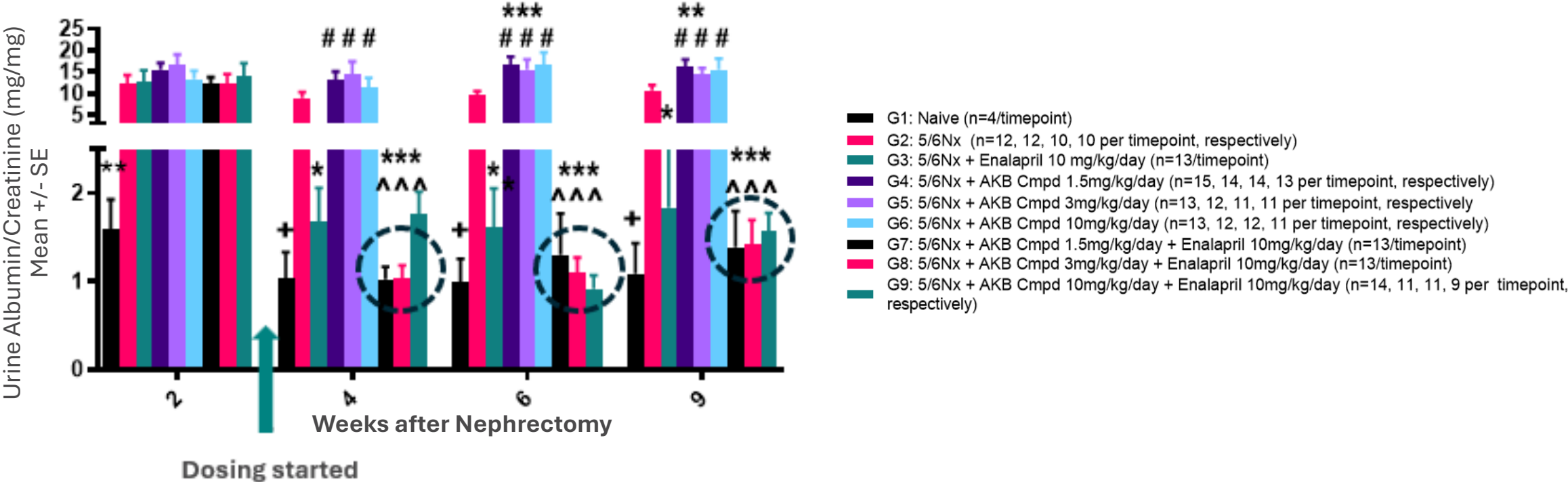
# Pralicyguat treatment on a background of enalapril reduced tubulo-interstitial inflammation and tubular degeneration/regeneration scores in Adriamycin mouse model of FSGS<sup>1</sup>



Significant differences from the Adriamycin group are denoted by †p<0.05, ††p<0.01.  
Significant differences from the AKBX-TBD groups are denoted by #p<0.05, ##p<0.01.

- A: Vehicle (saline) iv / Vehicle (0.5% Tween 80, 0.5% methylcellulose po)
- B: Adriamycin 11.5 mg/kg iv / Vehicle (0.5% Tween 80, 0.5% methylcellulose po)
- ▲ C: Adriamycin 11.5 iv mg/kg / AKBX-TBD 3 mg/kg po
- ▲ D: Adriamycin 11.5 mg/kg iv / AKBX-TBD 10 mg/kg po
- ▲ E: Adriamycin 11.5 mg/kg iv / AKBX-TBD 15 mg/kg po
- ▲ F: Adriamycin 11.5 mg/kg iv / AKBX-TBD 3 mg/kg po, Enalapril 30 mg/kg po
- ▲ G: Adriamycin 11.5 mg/kg iv / AKBX-TBD 10 mg/kg po, Enalapril 30 mg/kg po
- ▲ H: Adriamycin 11.5 mg/kg iv / AKBX-TBD 15 mg/kg po, Enalapril 30 mg/kg po
- ▲ I: Adriamycin 11.5 mg/kg iv / Enalapril 30 mg/kg po / Vehicle
- J: Naïve

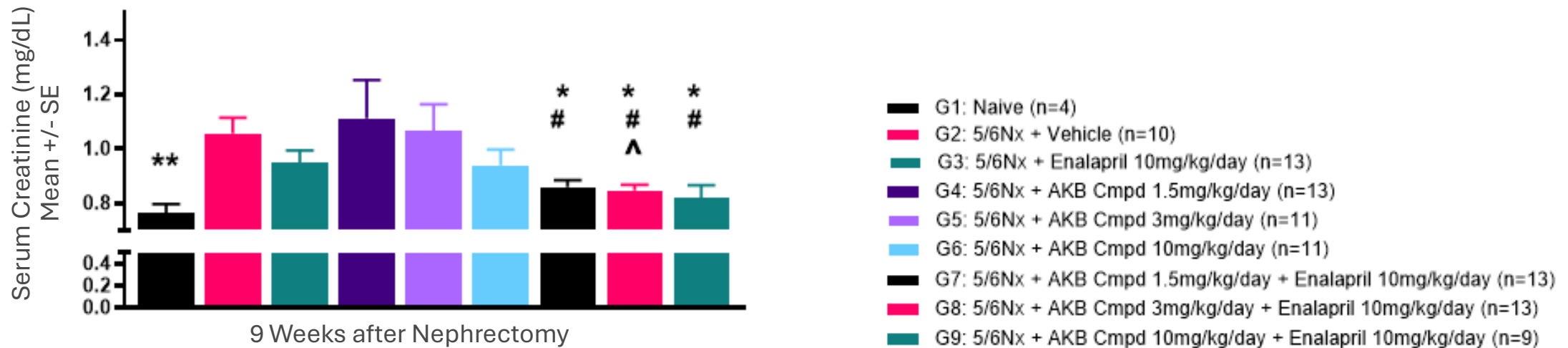
# Pralicyguat treatment on a background of enalapril lowered albuminuria in the 5/6 nephrectomy rat model<sup>1</sup>



\*p < 0.05 vs Vehicle; # p < 0.05 vs Enalapril; ^ p < 0.05 vs respective monotherapy; \*\* p < 0.05 vs all groups; + p < 0.05 vs Vehicle, monotherapy (all doses).

AKB Cmpd is pralicyguat; <sup>1</sup> Data from preclinical study: 1692-211348NI

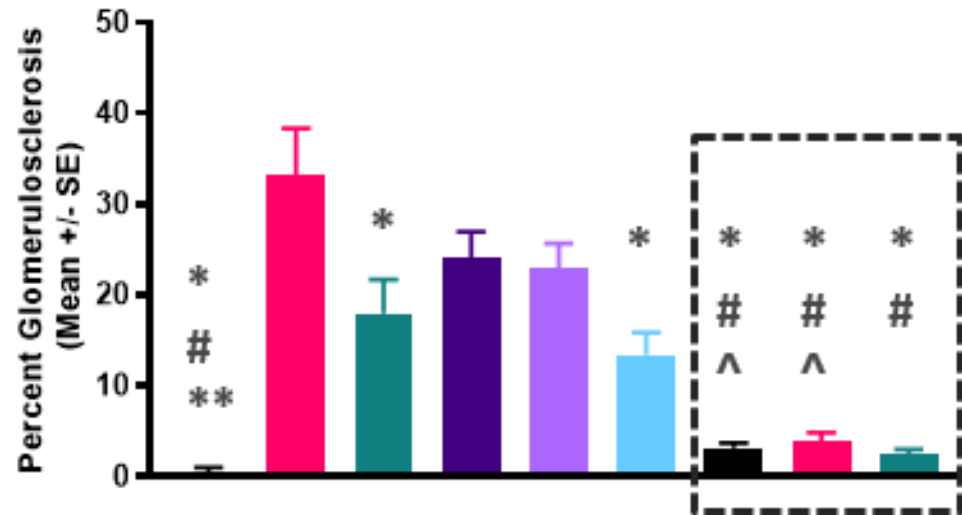
# Praliciguat treatment on a background of enalapril reduced serum creatinine in the 5/6 nephrectomy rat model<sup>1</sup>



\*p < 0.05 vs Vehicle; # p < 0.05 vs Enalapril; ^ p < 0.05 vs respective monotherapy; \*\* p < 0.05 vs all groups.

AKB Cmpd is praliciguat; <sup>1</sup> Data from preclinical study: 1692-211348NI

# In the 5/6 nephrectomy model, glomerulosclerosis reductions were greatest when praliciquat was administered with enalapril compared to either agent alone<sup>1</sup>

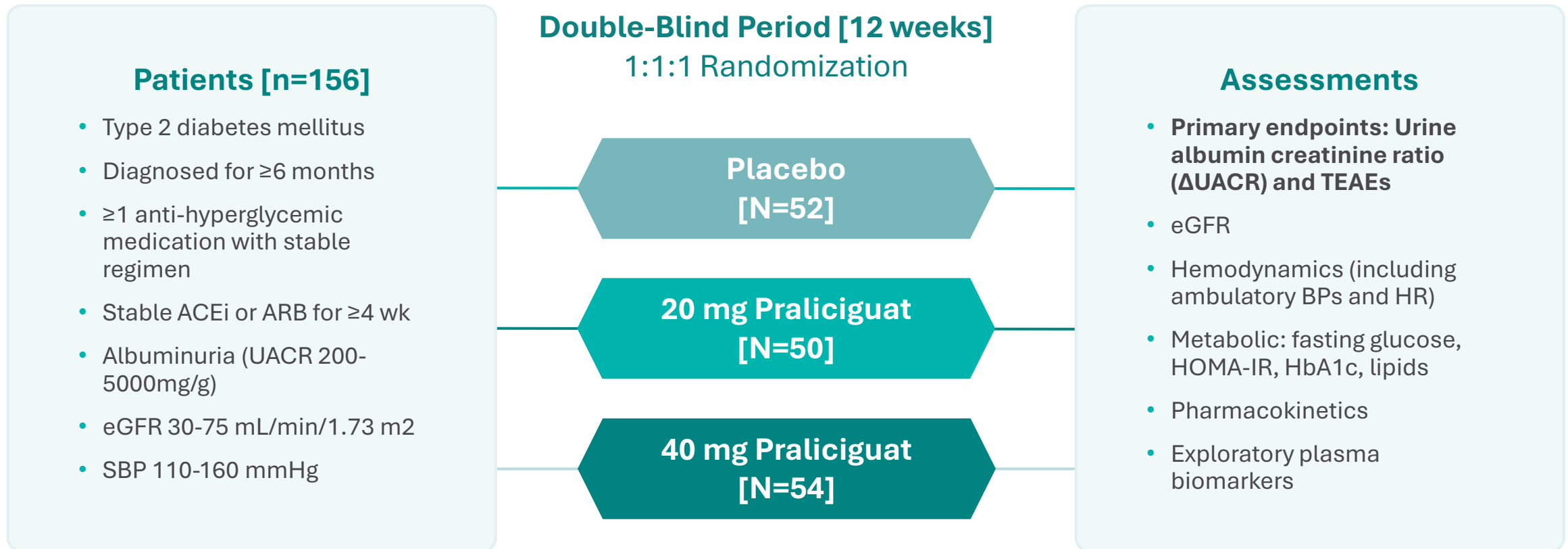


- G1: Naive (n=4)
- G2: 5/6Nx (n=10)
- G3: 5/6Nx + Enalapril 10 mg/kg/day (n=13)
- G4: 5/6Nx + AKB Cmpd 1.5mg/kg/day (n=13)
- G5: 5/6Nx + AKB Cmpd 3mg/kg/day (n=11)
- G6: 5/6Nx + AKB Cmpd 10mg/kg/day (n=11)
- G7: 5/6Nx + AKB Cmpd 1.5mg/kg/day + Enalapril 10mg/kg/day (n=13)
- G8: 5/6Nx + AKB Cmpd 3mg/kg/day + Enalapril 10mg/kg/day (n=13)
- G9: 5/6Nx + AKB Cmpd 10mg/kg/day + Enalapril 10mg/kg/day (n=9)

\* p < 0.05 vs Vehicle; # p < 0.05 vs Enalapril; ^ p < 0.05 vs respective monotherapy; \*\* p < 0.05 vs monotherapy @ 1.5, 3 mg/kg/day

# Completed Phase 2 study\* in patients with DKD receiving standard of care

Objective: To assess safety and tolerability of praliciguat and its effect on renal function in patients with DKD on RAAS inhibitors



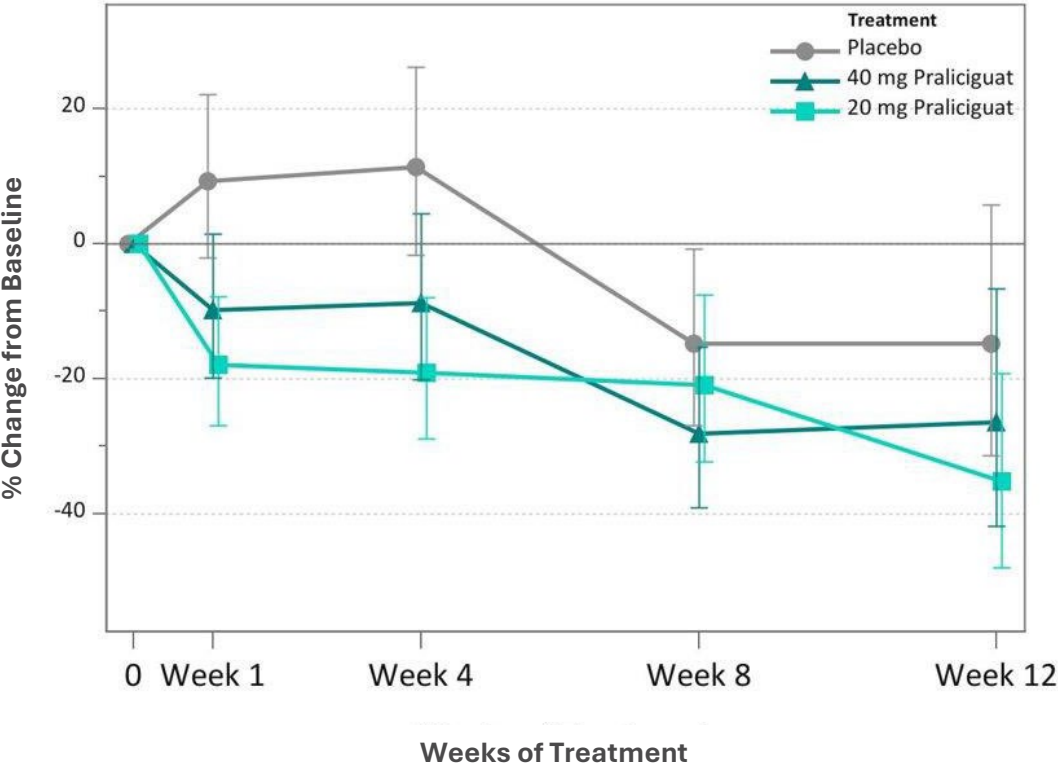
\*Study completed by Cycleron, Inc. Hanrahan et al. CJASN 2021; DKD is diabetic kidney disease; RAAS is renin-angiotensin-aldosterone system; ACE is angiotensin-converting enzyme; ARB is angiotensin II receptor blockers; UACR is urine albumin-to-creatinine ratio; eGFR is estimated glomerular filtration rate; SBP is systolic blood pressure; DBP is diastolic blood pressure; MAP is mean arterial pressure; HR is heart rate; TEAEs is treatment emergent adverse events; HOMA-IR is homeostatic model assessment of insulin resistance; HbA1C is hemoglobin A1C

# Phase 2 study\* showed praliguat treatment associated with rapid and sustained reduction in UACR in ITT and post-hoc mITT population

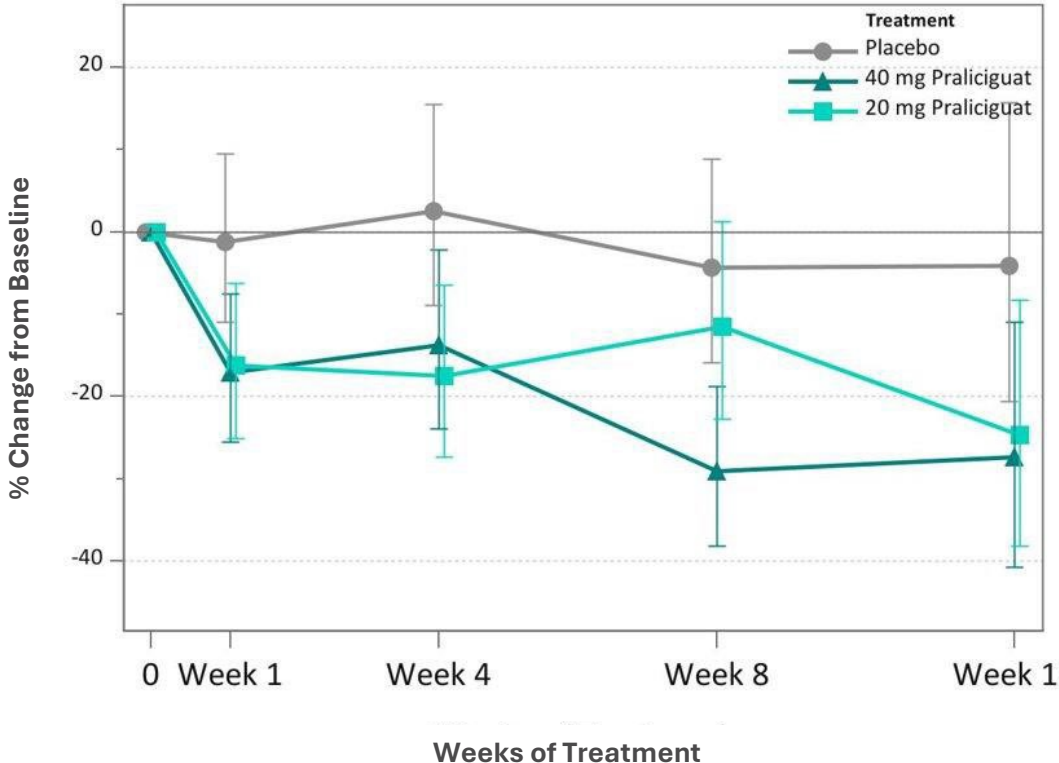
**ITT Population  
(N=156)**

**mITT (without site 36)  
(N=133)**

DKD Study: LS Mean (90% CI) Change in Baseline in UACR (mg/g) ITT



DKD Study: LS Mean (90% CI) Change in Baseline in UACR (mg/g) ITT



\*Phase 2 Study (Hanrahan et al. CJASN 2021) evaluating praliguat versus placebo in patients with diabetic kidney disease completed by Cycleron, Inc. DKD is diabetic kidney disease; ITT is intent to treat; mITT is modified intent to treat; UACR is urine albumin-to-creatinine ratio

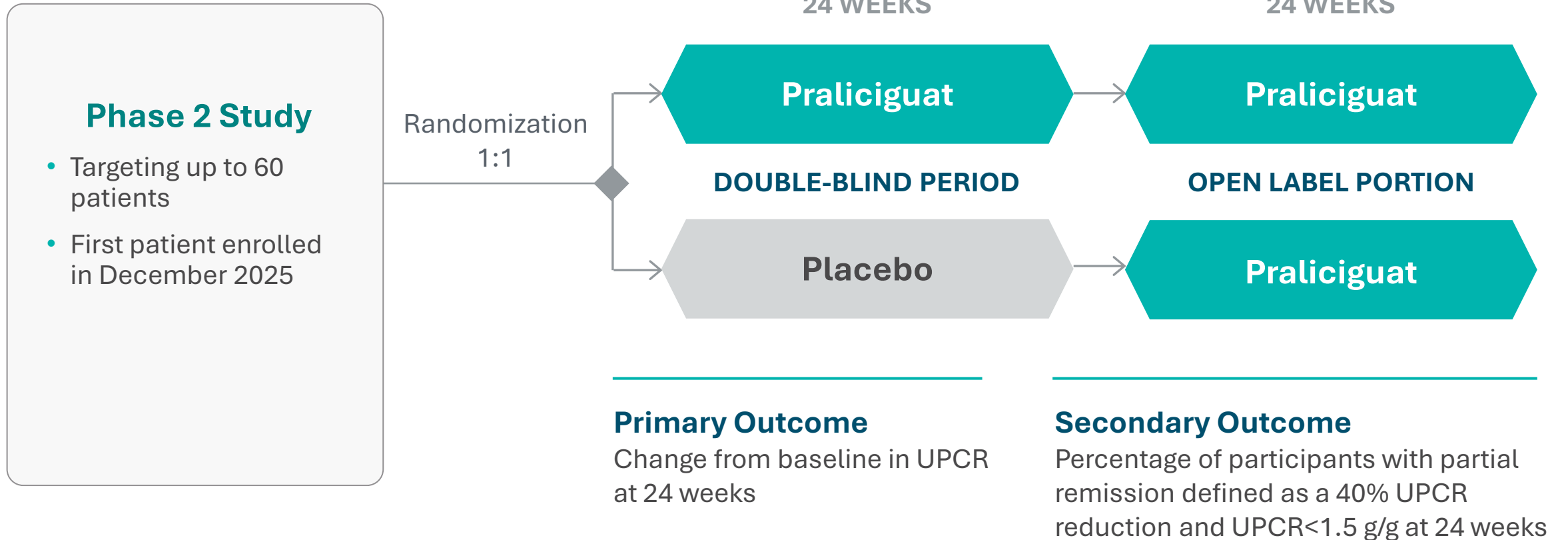
## Post hoc analysis of Phase 2 trial\* in patients with DN showed increased UACR responses

UACR Cut-point	Praliciguat n/N (%)	Placebo n/N (%)	Difference %	Relative Risk (RR)	95% CI
<b>Any time in 12 weeks</b>					
0.3 g/g	24/84 (28.6)	8/46 (17.4)	+11.2	1.64	0.804, 3.358
<b>0.5 g/g</b>	<b>43/84 (51.2)</b>	<b>16/46 (34.8)</b>	<b>+16.4</b>	<b>1.47</b>	<b>0.941, 2.302</b>
0.7 g/g	53/84 (63.1)	23/46 (50.0)	+13.1	1.26	0.905, 7.759

UACR of 0.5 g/g approximates a urine protein to creatinine ratio (UPCR) of 0.7 g/g.

# Praliguat Phase 2 clinical trial in FSGS

Randomized, double-blind, placebo-controlled, dose-titration study to evaluate the efficacy and safety of praliguat in adults with biopsy-confirmed FSGS.



# **AKB-097**

## **Ebribafusp alfa**



# The complement system and complement-mediated disease

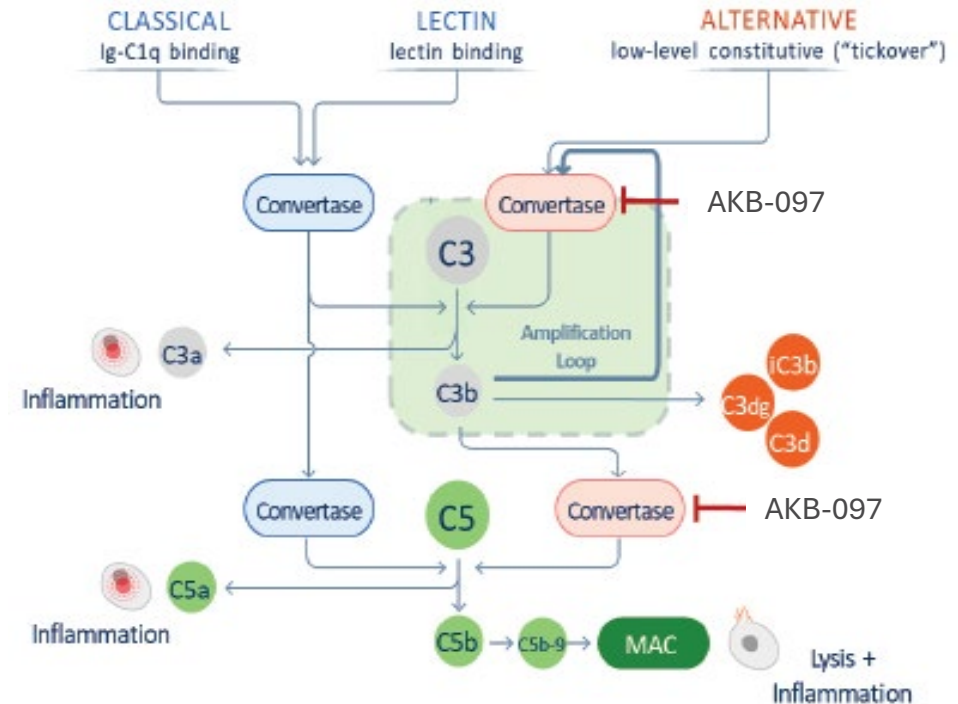
The body's complement system is comprised of ~30 proteins produced by the liver and immune cells that work together as part of the innate immune system. Most of these proteins are found in blood or on cell surfaces.<sup>1</sup>

## Main effects of complement<sup>1</sup>

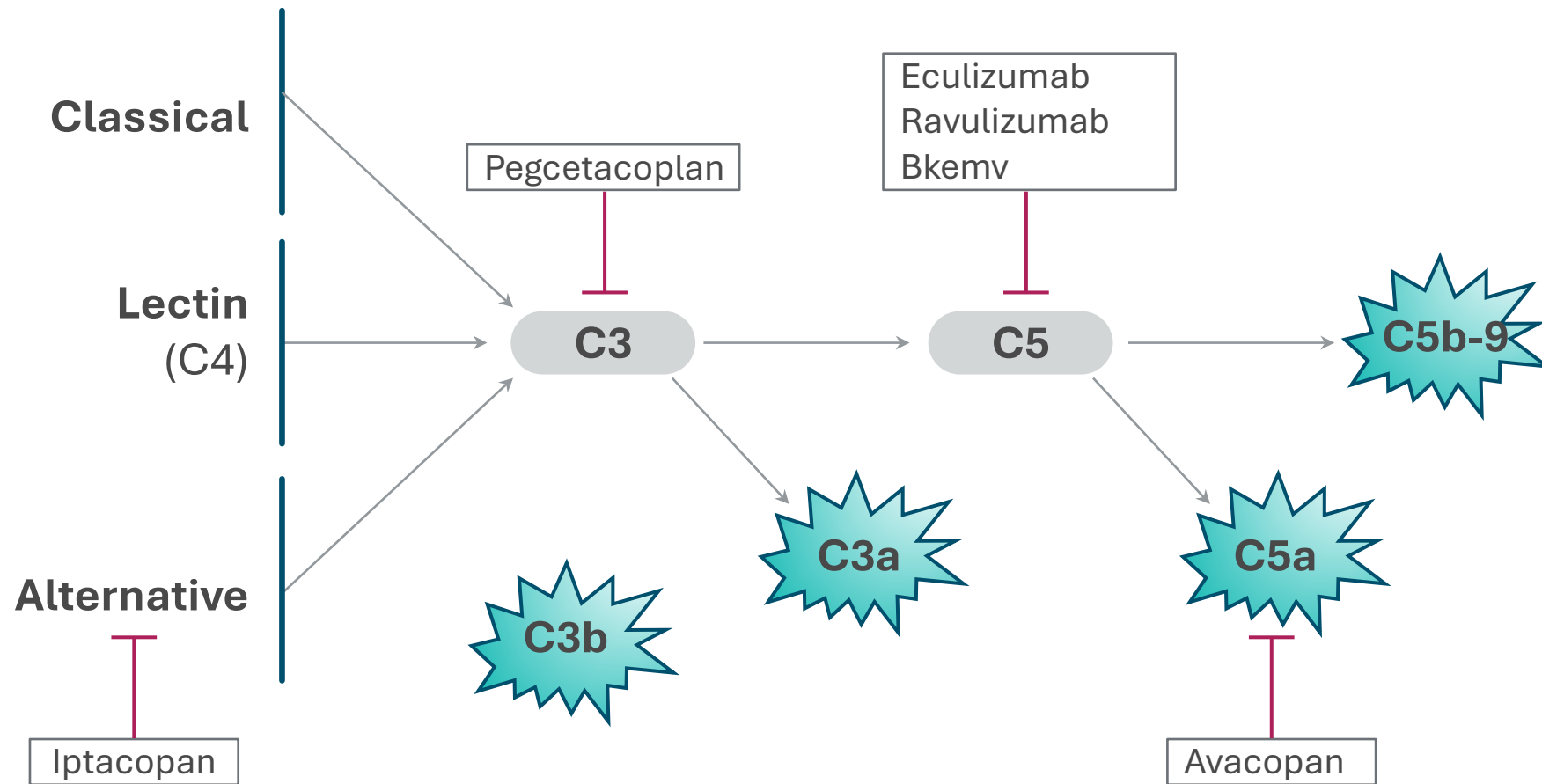
1. Lysis of bacteria and damaged cells
2. Enhancement of pathogen clearance
3. Recruitment of inflammatory cells

The complement system can become dysregulated resulting in numerous inflammatory and autoimmune conditions including multiple diseases of the kidney.<sup>1</sup>

Complement inhibitors work by binding to and preventing the activation of specific complement proteins, halting the cascade and reducing inflammation and the destruction of cells.<sup>2</sup>



# Complement inhibitors approved for kidney diseases



# AKB-097 aims to address limitations of current complement inhibitors

## PROBLEM:

- **Limited activity:** Reliant on systemic blockade to impact affected organ
- **High doses, frequent administration required:** High abundance, rapid turnover of most target complement proteins
- **Systemic risk:** Complement plays critical role in combatting infection; systemic complement inhibition carries long-term unknowns

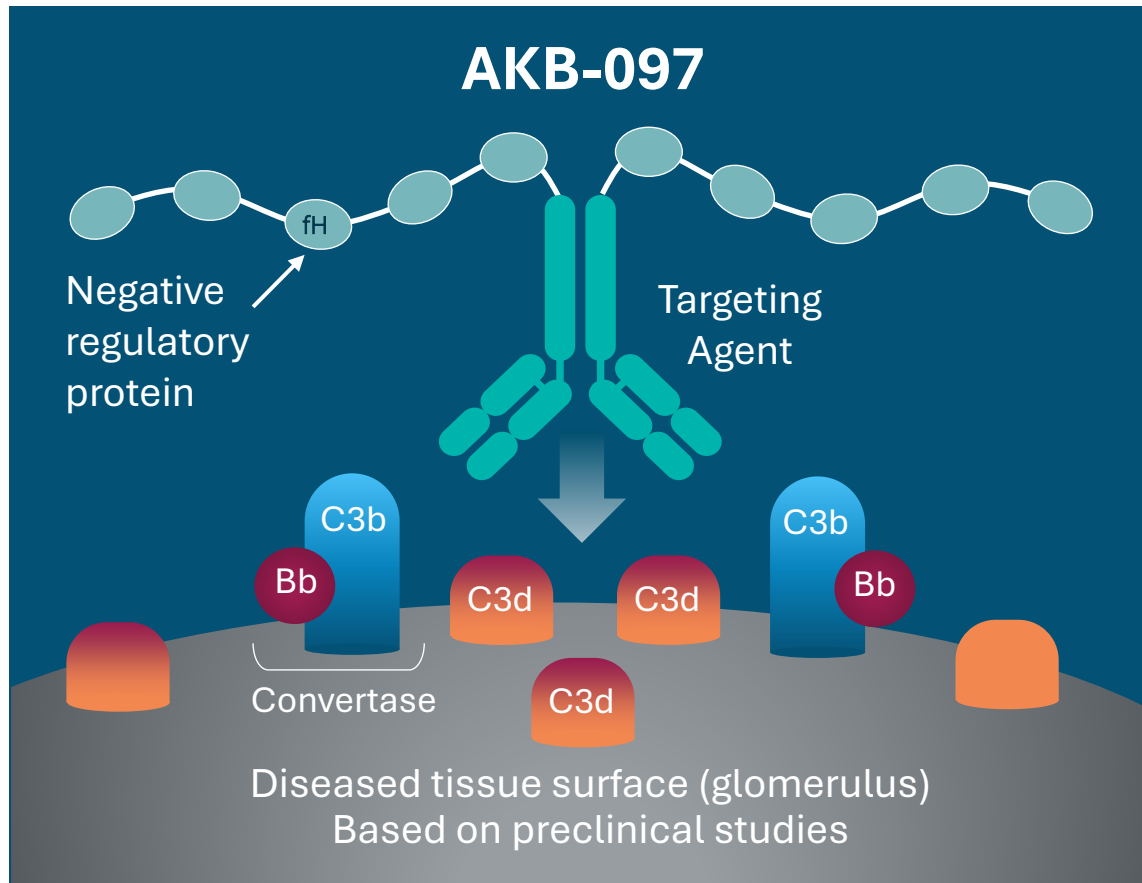
## POTENTIAL SOLUTION:

- **Enhanced activity through tissue targeting:** Differentiated approach to driving efficacy by inactivating convertases directly at site of activation
- **Reduced treatment burden:** Subcutaneous route with once weekly dosing; potential for once every two weeks dosing
- **Improved risk/benefit profile:** Designed to maximize therapeutic index while maintaining intact immune surveillance

# AKB-097 is a novel, tissue-targeted complement inhibitor

Designed to target complement activity in tissues to degrade alternative pathway convertases

Targeting control of the amplification loop of all 3 complement pathways (alternative, classical, and lectin)



- AKB-097 binds with high affinity to C3d, a long-lived fragment of C3
- Factor H (fH) binds to C3b in alternative pathway C3 and C5 convertases
- fH promotes AP convertase dissociation
- fH with Factor I induces AP convertase degradation

# Presence of C3d in human glomeruli is a hallmark of numerous kidney diseases

## Immunostaining of C3d in human glomeruli

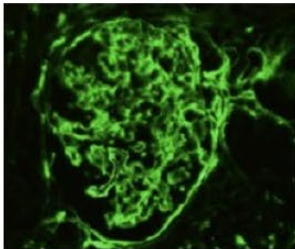
● = complement activation

Negative Controls

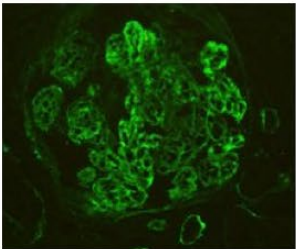
DISEASE



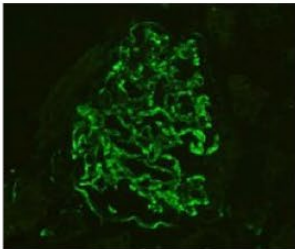
Acute Tubular Necrosis



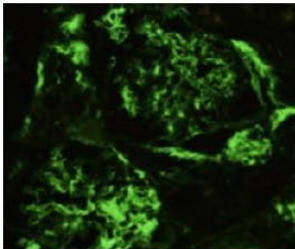
IgA Nephropathy



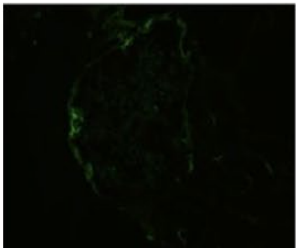
Lupus Class IV



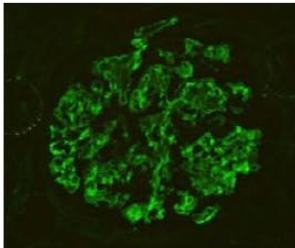
Lupus Class V



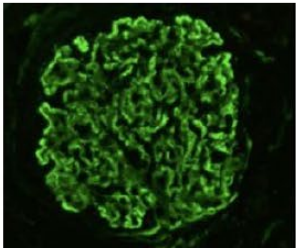
Minimal Change Disease



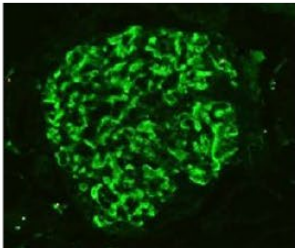
Thin Glomerular BM



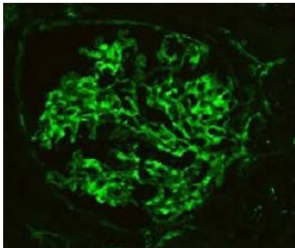
MPGN



Membranous (PLA2R+)

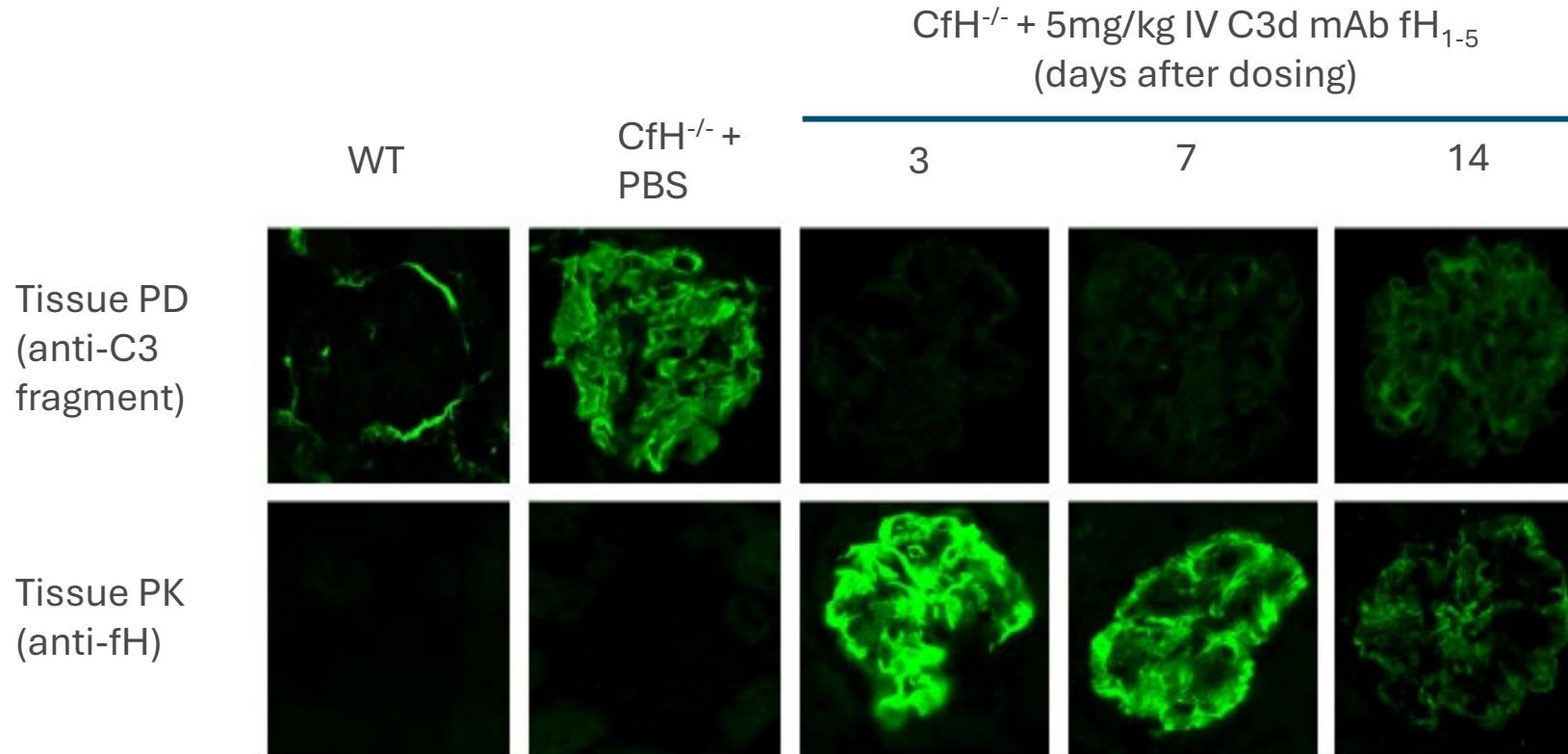


C3 Glomerulopathy



Diabetic Nephropathy

# In the fH<sup>-/-</sup> mouse model of human C3G, AKB-097 had long term, durable kidney PK and PD



The fH<sup>-/-</sup> mouse model had uncontrolled complement activation

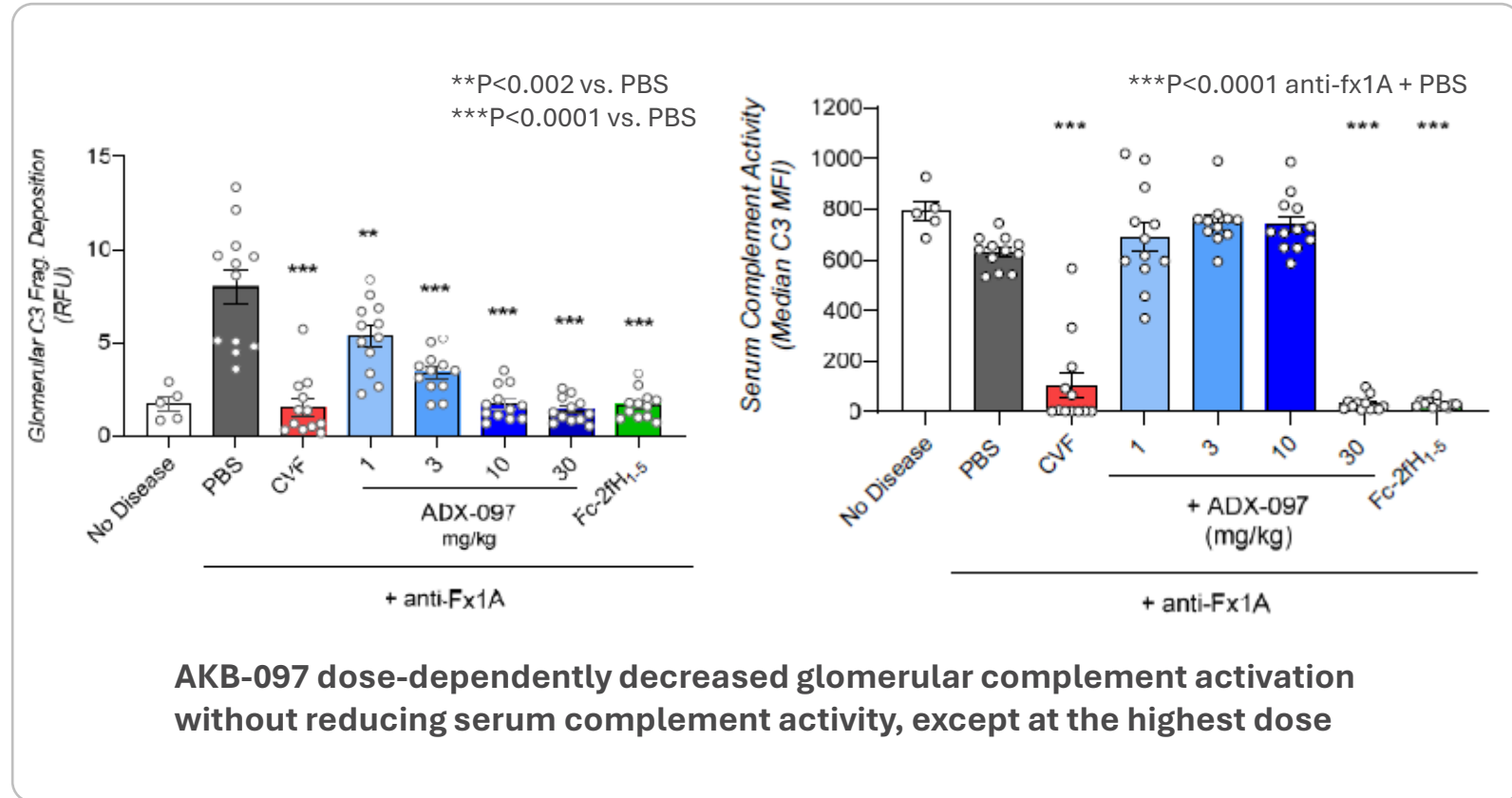
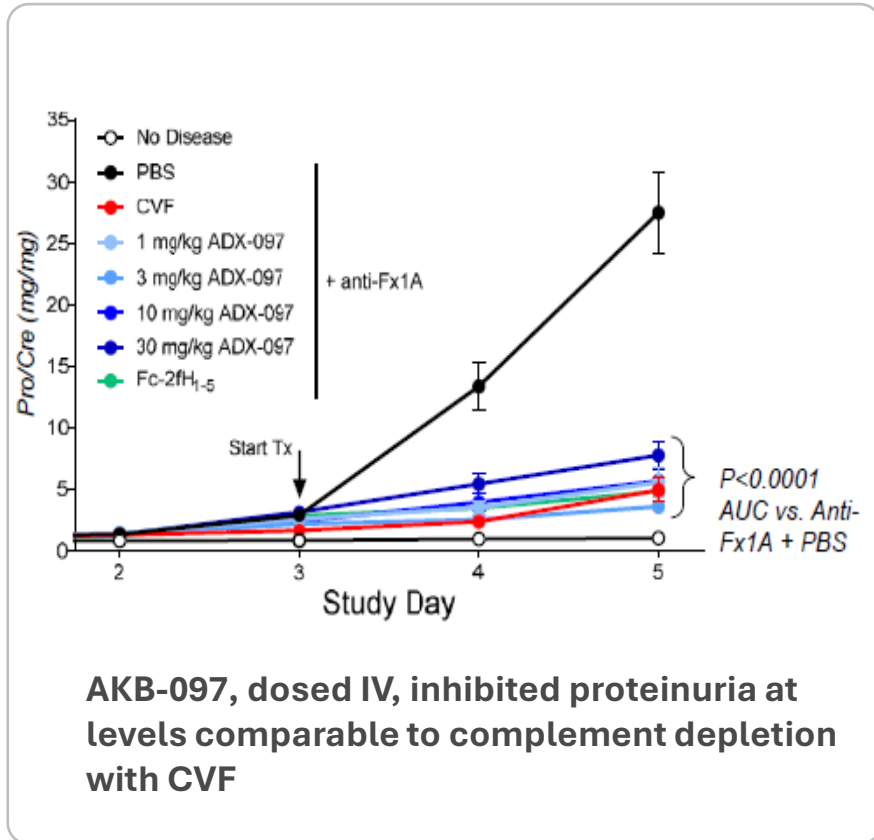
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AKB-097 showed robust inhibition of C3 activity with both SC or IV dosing

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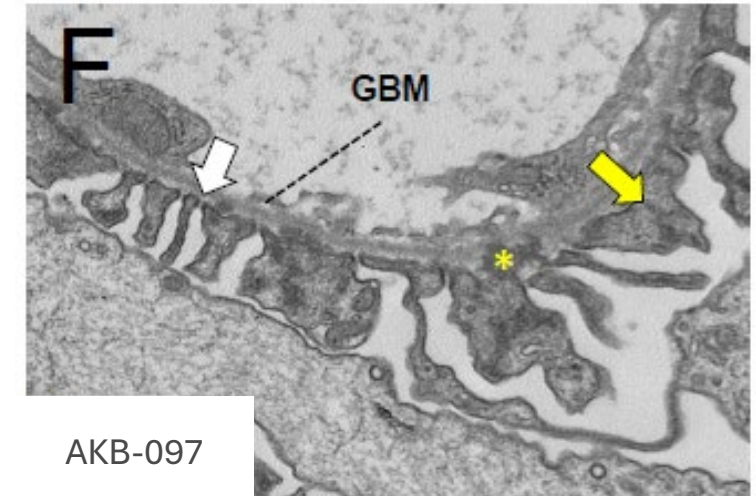
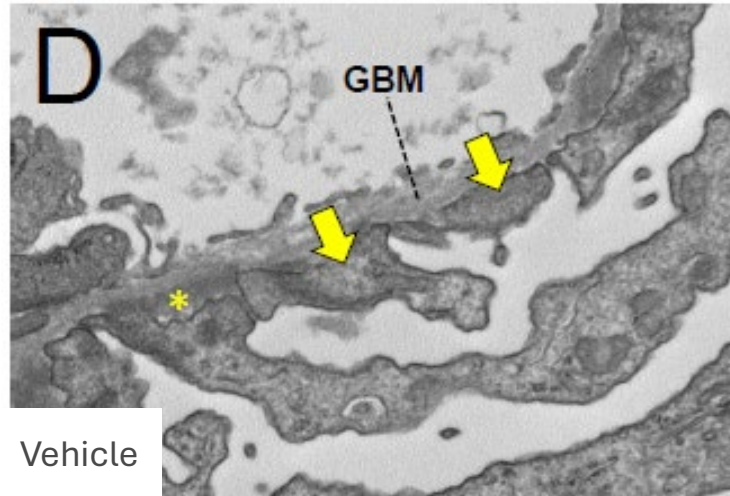
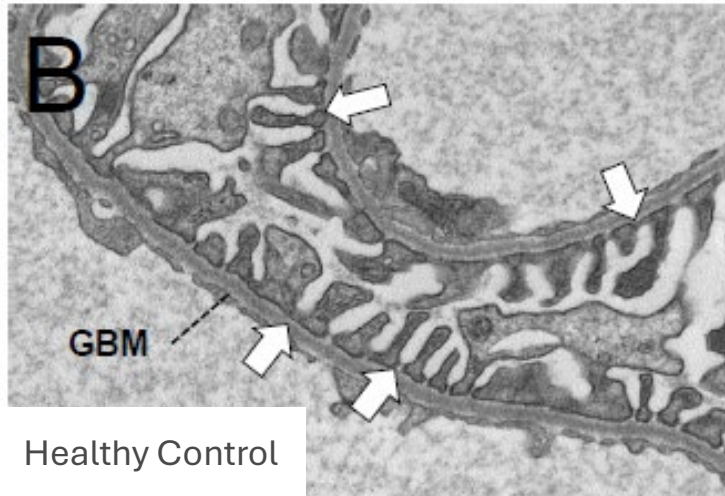
Tissue PK/PD supports SC dosing every 1 to 2 weeks

# AKB-097 IV reduced glomerular complement activation and proteinuria in the rat model of membranous nephropathy



Data source: Liu et al 2024 Mol Therapy 32(4):1061-1079; IV is intravenous; Cx1A is cobra venom factor; Anti-Fx1A is a sheep antibody to rat proximal tubular epithelial cell brush border antigen; PBS is phosphate buffered saline

# AKB-097 protects podocytes from foot process effacement in the membranous nephritis model<sup>1</sup>

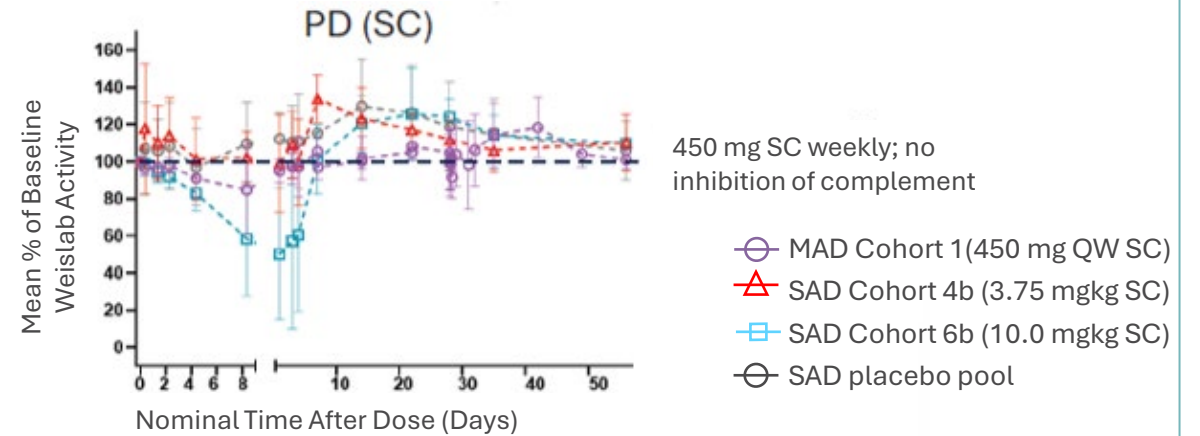
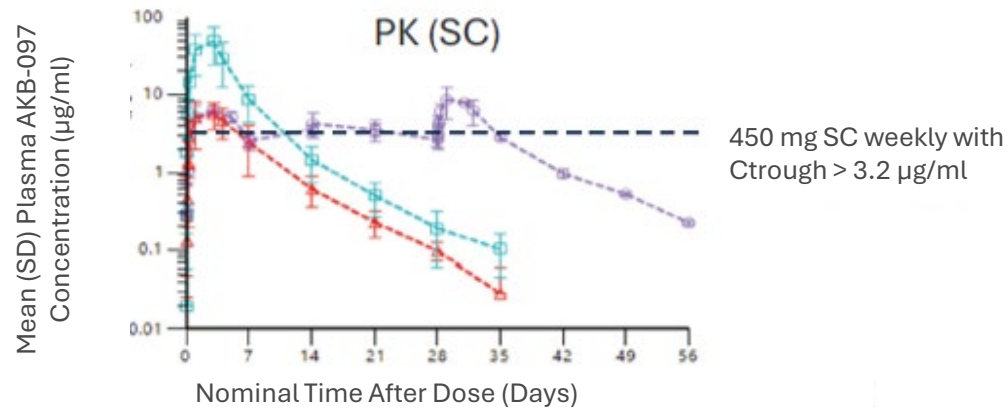
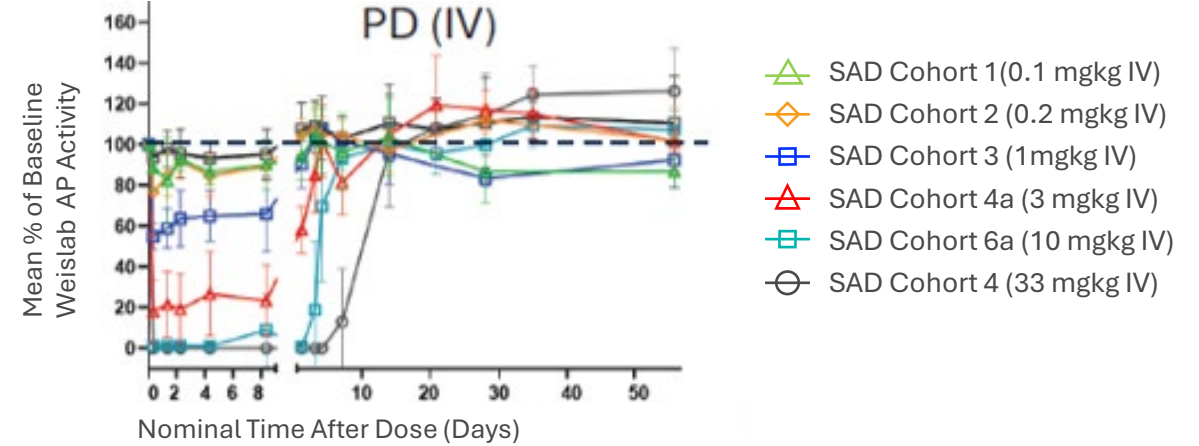
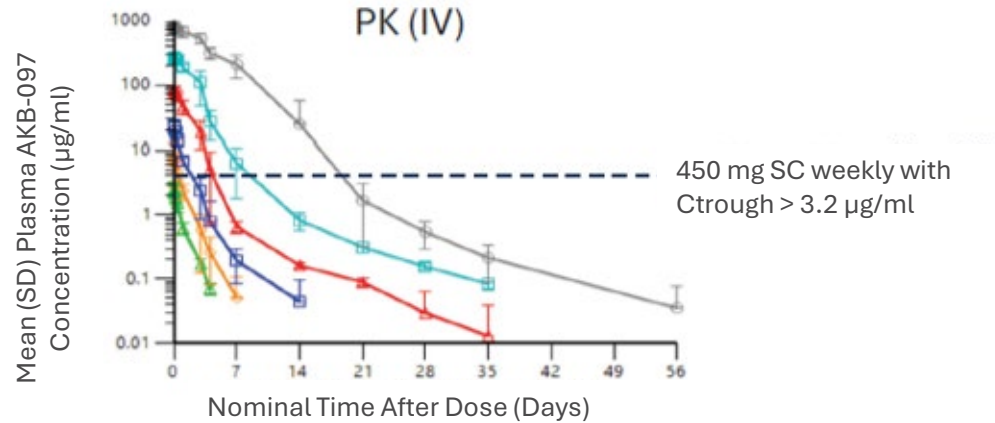


Transmission electron microscopy  
Shows well-differentiated podocyte  
foot processes (white arrows)

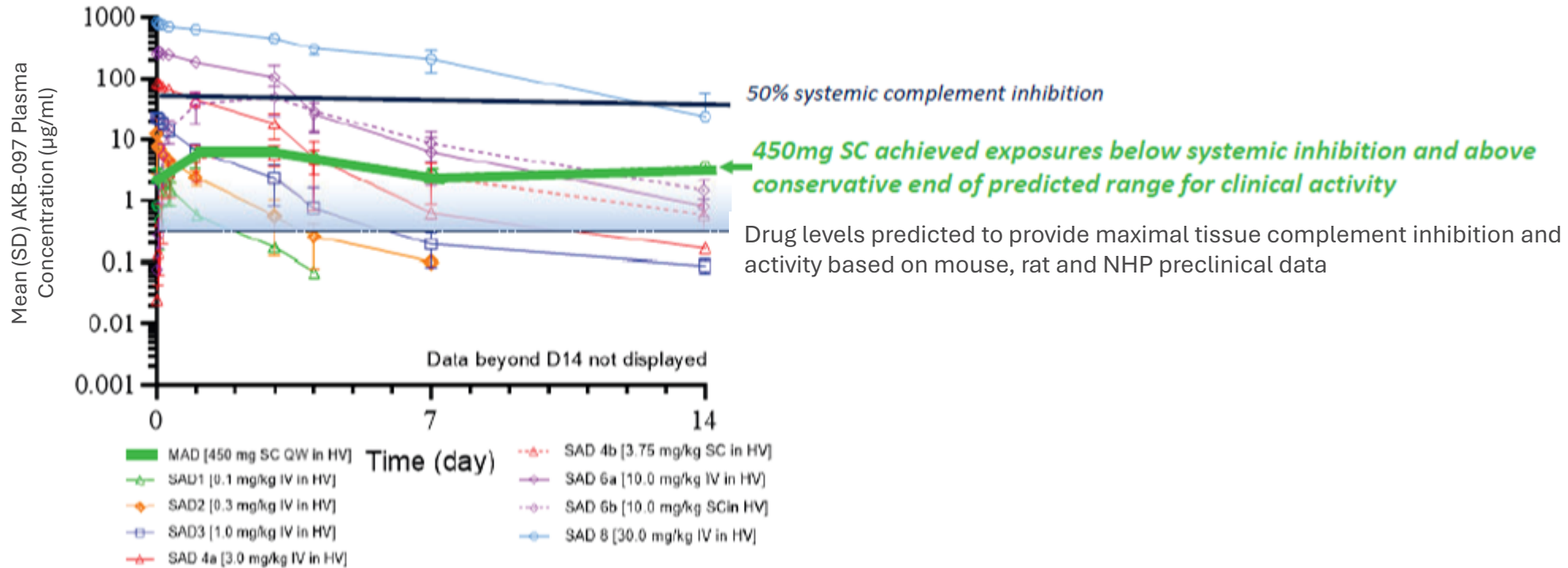
In the rat model, there is extensive foot  
process effacement (yellow arrows)  
and electron dense regions (yellow  
asterisk), consistent with immune  
complex deposition

Treatment with AKB-097 shows  
substantial preservation of podocyte  
foot processes (white arrow), though  
occasional examples of podocyte foot  
process effacement (yellow arrow) and  
electron dense regions (yellow  
asterisk) can be found

# In a Phase 1 study\*, weekly SC dosing met desired exposures for predicted complement tissue inhibition without systemic AP pathway inhibition



# Phase 2 dose identified: 450 mg SC met desired exposure goals in Phase 1 study<sup>1</sup>



No serious or severe adverse events (AEs), no discontinuations due to AEs, no AEs related to immunogenicity, and minimal anti-drug antibodies detected with low-level titers only.<sup>1</sup>

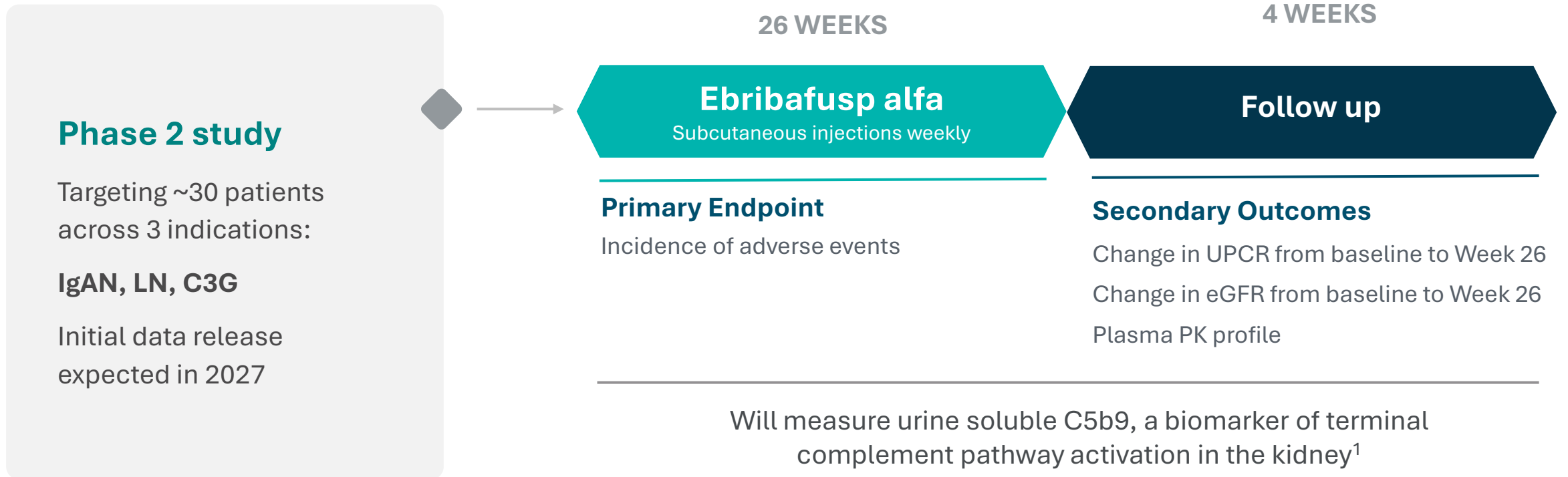
# AKB-097 could become the SOC in multiple rare kidney diseases alone or in combination with other therapies

	IgAN	LN	C3G
Role of complement system in disease	Drives inflammation and kidney injury <sup>1</sup>	Lack of complement inhibitors in SLE, accelerates the development of LN <sup>3</sup>	Overactivation of the complement cascade leads to kidney damage <sup>5</sup>
Shortcomings of SOC or therapies in development	~50% refractory rate for APRIL±BAFF inhibitors <sup>2</sup>	>50% refractory rate for approved treatments <sup>4</sup>	~30% refractory rate for leading, approved complement inhibitor <sup>6</sup>
Potential commercial opportunity	Expect role for multiple therapies as IgAN has highly heterogeneous treatment response, genetics, immunology, and pathology	Expect role for multiple therapies as LN encompasses multiple biological subtypes	Expect role for next-generation complement inhibitors that offer improved convenience, dosing and/or safety profile with equal or better efficacy

SOC is standard of care; SLE is systemic lupus erythematosus; Refractory rate is non-response to treatment <sup>1</sup>Daha MR. Role of complement in IgA nephropathy <sup>2</sup>Vertex Press Release, March 9, 2026 <sup>3</sup>Bao L. Complement in Lupus Nephritis <sup>4</sup>Roche Press Release, October 19, 2025 <sup>5</sup>Willows J. The role of complement in kidney disease <sup>6</sup>Apellis Press Release, July 28, 2025

# Ebribafusp alfa Phase 2 open-label rare kidney disease basket trial

The trial is designed to evaluate the safety, PK/PD, and clinical activity of ebribafusp alfa in patients with IgAN, LN, and C3G.



**AKB-9090**

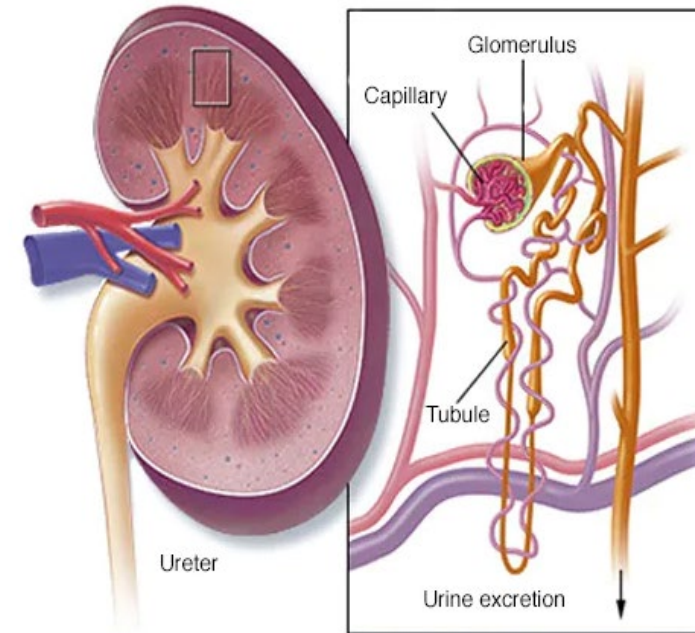


# CS-AKI affects a significant number of patients and there is unmet need for treatment

AKI is a sudden decrease in kidney function measured within a week and often associated with another serious illness or condition.<sup>1</sup>

Can arise from cardiac surgery-related procedures that cause hypoperfusion, hemolysis, inflammation, and reduced oxygen delivery to the kidney.<sup>2</sup>

AKI occurs in up to 30% of the ~400,000 annual cardiac surgical procedures.<sup>2</sup>



3

**No approved therapies specifically for CS-AKI**

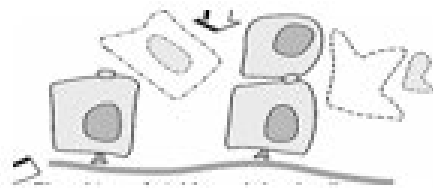
# AKB-9090 is a novel HIF-PH inhibitor being evaluated in CS-AKI

## The case for HIF-stabilization in AKI

Stabilization of HIF, a transcription factor, by prolyl hydroxylase inhibition leads to coordinated changes in gene expression which activate cell survival pathways, shift cellular metabolism from aerobic to anaerobic, decrease reactive oxygen species (ROS) and reduce inflammation, lessening kidney tubule epithelial and microvascular injury.

Injury to the tubular epithelium and microvascular endothelium underlie the pathophysiology of AKI<sup>1</sup>

### Tubular Epithelia



Cell Death/Detachment

### Microvasculature

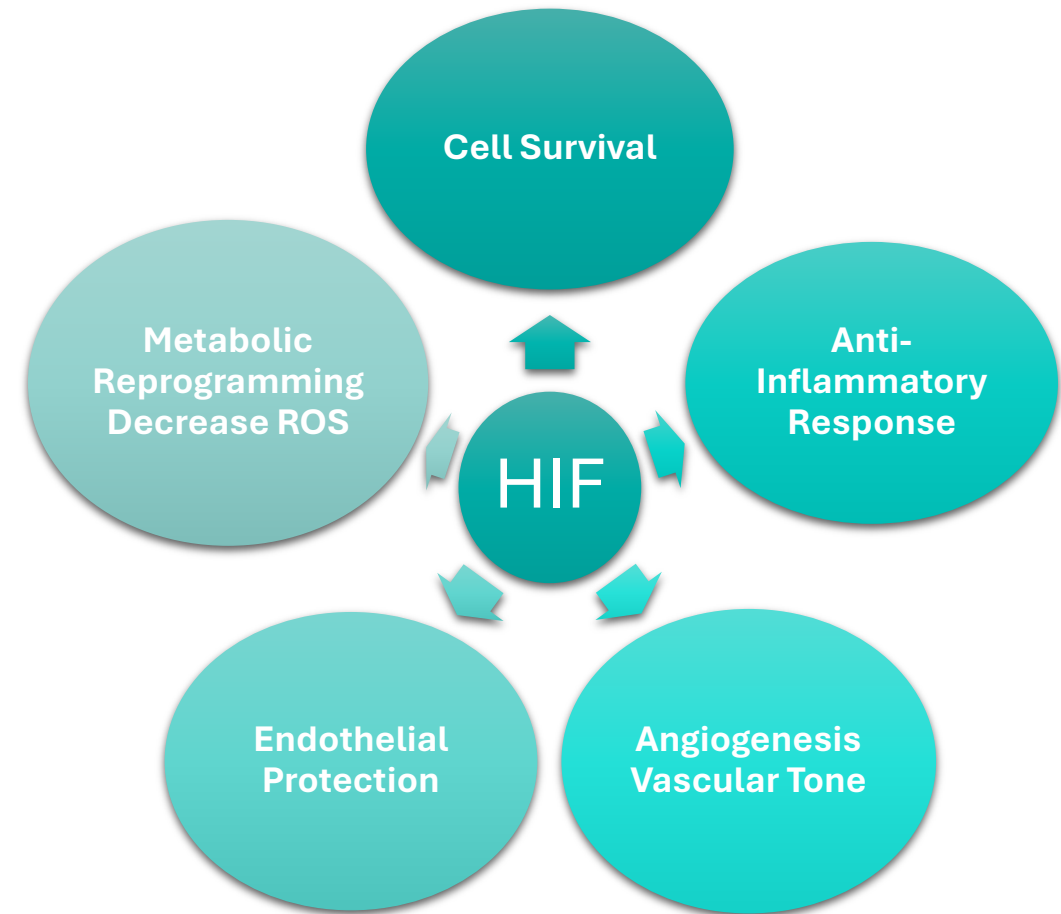
Impaired vasodilation, obstruction and damage/loss

# AKB-9090 mechanism of kidney protection<sup>1</sup>

Investigational agents for AKI targeting a single pathway have not worked, including recombinant alkaline phosphatase, p53 inhibitor, HGF mimetic, BMP peptide or  $\alpha$ -MSH inhibitor.

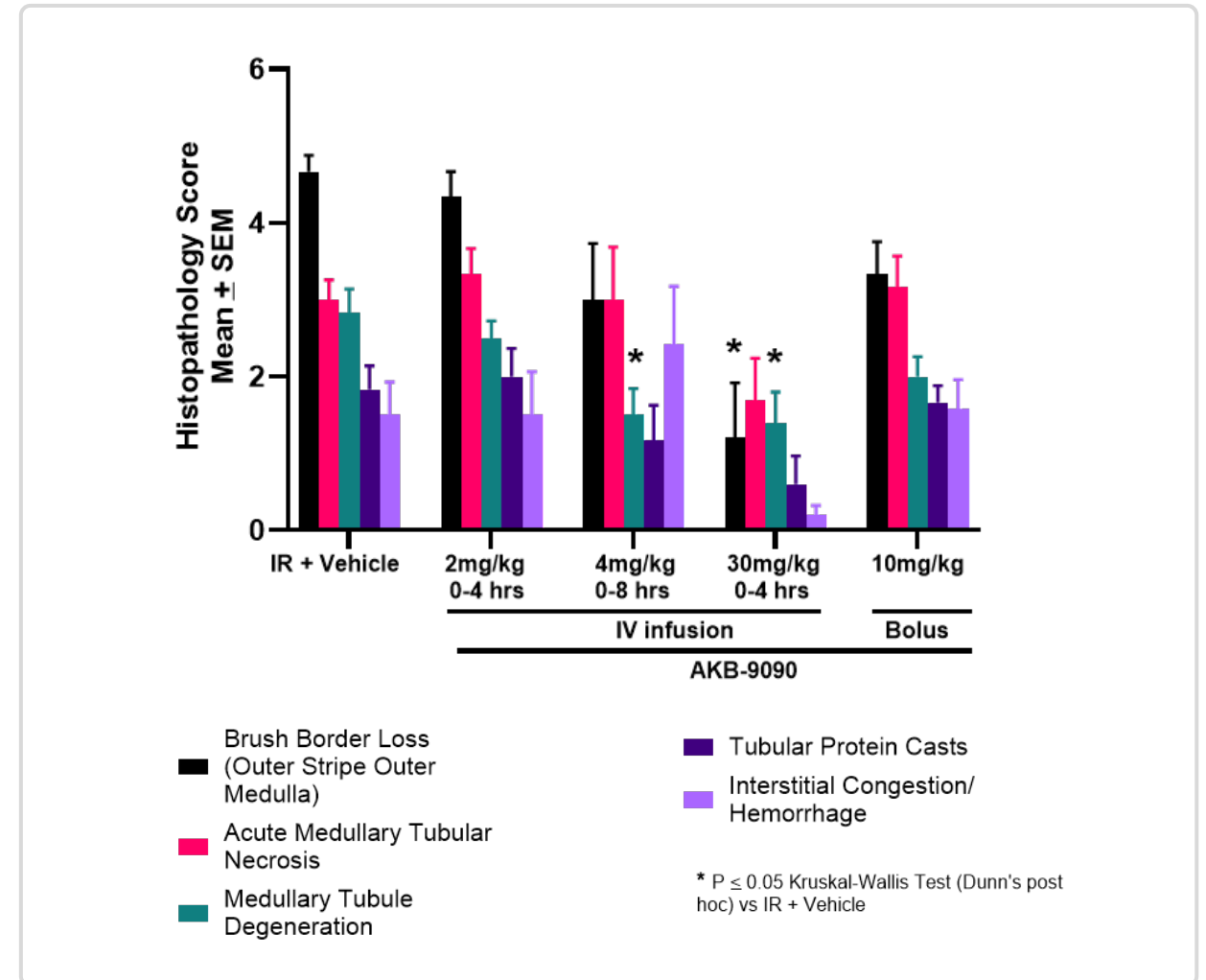
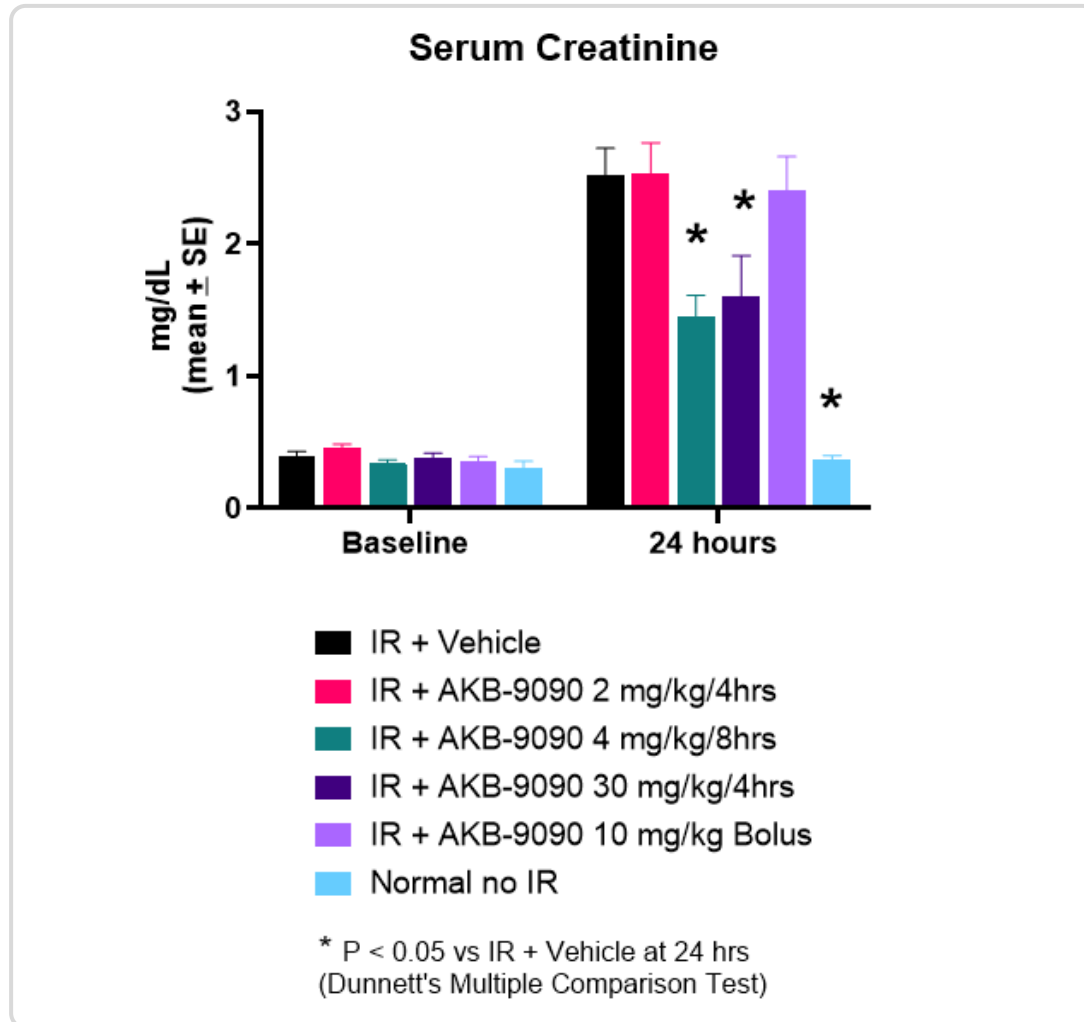
Unlike these agents, AKB-9090 activates HIF<sup>2</sup>, a transcription factor present in all tissues and cells, which activates the many pathways responsible for adaptation to hypoxia.<sup>3</sup>

AKB-9090 may have utility in other types of AKI, such as sepsis-associated and chemotherapy-associated AKI, and ARDS.



<sup>1,3</sup>Semenza 2012 Cell 148(3):399-408; <sup>1</sup>Maxwell and Eckardt 2016 Nat Rev Nephrol 12(3):157-168, Sanghani and Haase 2019 Adv Chronic Kid Dis 26(4): 253-266, IU-AKB-0010, AKB-10, Addendum to AKB-10, IU-AKB-0011, IU-AKB-0017, 1520-2302890, Addendum to 1520-2302890, AKBA-295-3, Addendum to AKBA-295-3, XD05/XLB443, Addendum to XD05/XLB443, AKB-RR-009, AKB-RR-010; <sup>2</sup>AKB-RR-007

# AKB-9090 reduced kidney injury in a kidney ischemia-reperfusion animal model



# Multiple value enhancing milestones expected over the next 12+ months

