Preliminary Data from PrisMN, a Phase 2 Study Evaluating the Safety and Efficacy of Budoprutug, an Investigational Low-Fucosylated Anti-CD19 mAb, in Primary Membranous Nephropathy (PMN)

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Role of B-Cell Depletion in PMN

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B-cell depletion with anti-CD20 mAbs has emerged as an important therapeutic strategy in PMN, but most patients fail to achieve complete remission, underscoring the need for more effective therapies

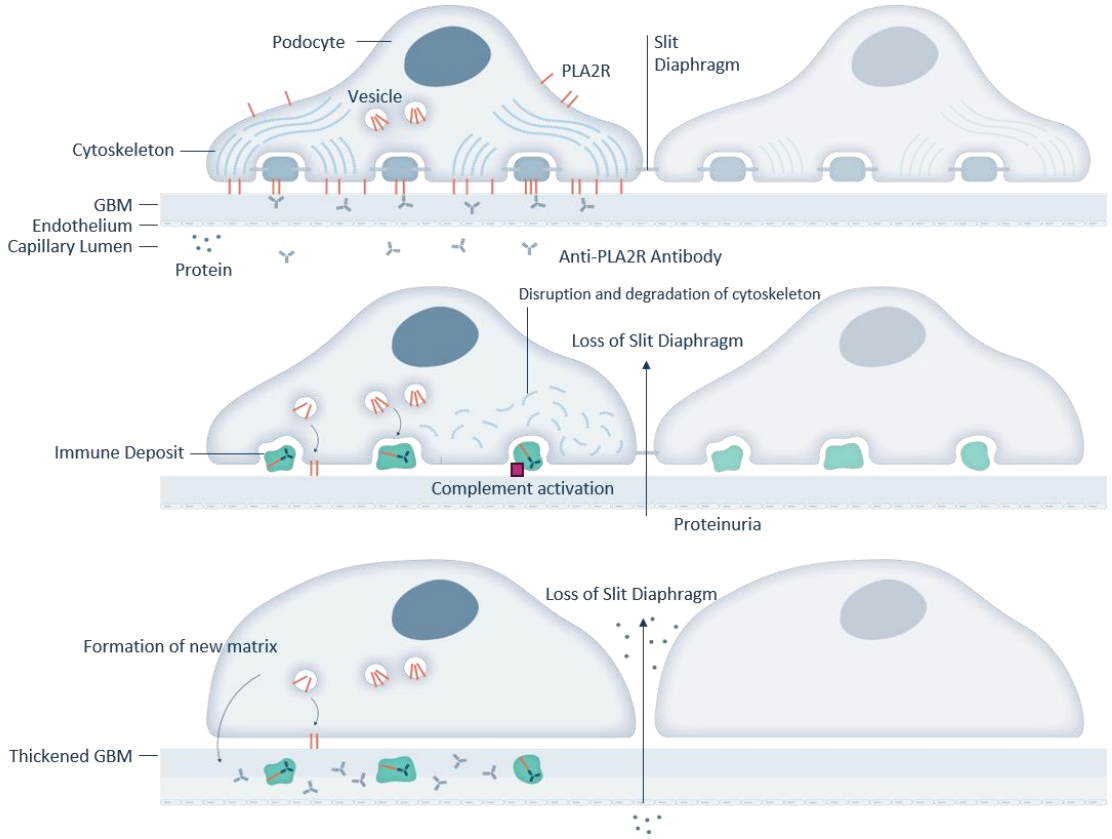
PMN is one of the leading causes of nephrotic syndrome in adults.

- Patients with persistent **high-grade proteinuria** are at risk for progressive decline in kidney function and require treatment with immunosuppression.

In **~75% of PMN patients** the disease is caused by **autoantibodies directed against PLA2R,** forming immune complexes that are deposited in the glomerular subepithelial space.[1]

- Achievement of **immunological remission** (anti-PLA2R <14 RU/mL) precedes, and is associated with, remission of proteinuria.[2,3,4]

Rituximab MENTOR trial[5] and obinutuzumab MAJESTY trial[4] established **B-cell depletion** as a therapeutic option in PMN; however, only ~1/3 patients achieve complete remission of proteinuria.



Adapted from Ronco Nature Rev Disease Primers 2021

GBM = glomerular basement membrane, mAbs = monoclonal antibodies, PLA2R = phospholipase A2 receptor, PMN = primary membranous nephropathy

1. Beck LH NEJM 2009; 2. Barbour SJ CJASN 2023; 3. Rovin BH Kidney International 2021; 4. Fervenza FC NEJM 2026; 5. Fervenza FC NEJM 2019.

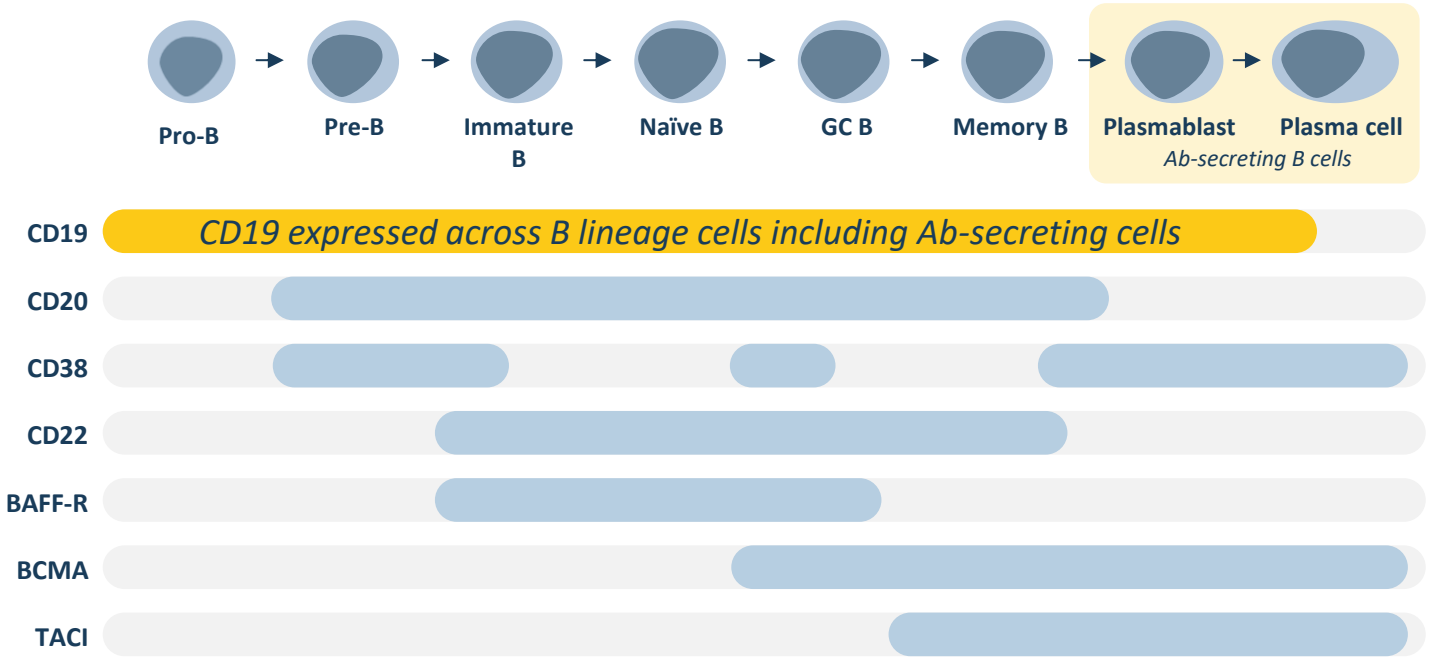
Pathophysiology Supporting Targeting CD19 in PMN

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Targeting CD19 has the potential for deep and durable depletion of B cells and the pathogenic anti-PLA2R autoantibodies in PMN

CD19 is expressed more broadly across the B-cell lineage, as compared to CD20.

Importantly, **antibody-secreting plasmablasts and plasma cell subsets retain CD19,** but not CD20 expression.[1] The **pathogenic antibodies in PMN are predominantly IgG4 isotype**,[2-4] which are secreted by plasmablasts and plasma cells, providing a clear **mechanistic rationale for targeting CD19 in PMN**.



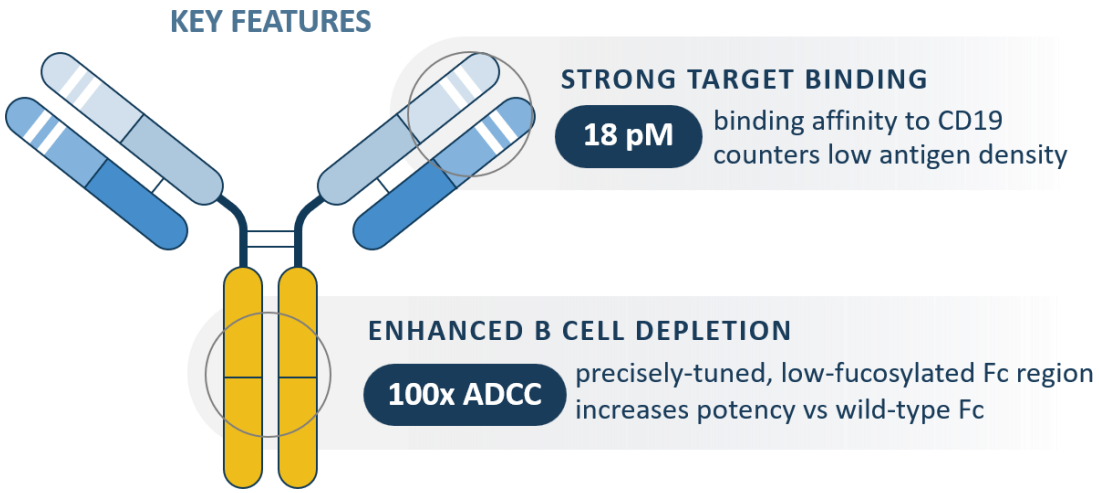
Ab = antibody, PLA2R = phospholipase A2 receptor, PMN = primary membranous nephropathy

1. Suan J Immunol 2025; 2. Beck NEJM 2009; 3. Hofstra JASN 2012; 4. Tomas NEJM 2014

Budoprutug: Phase 1b Data in PMN

Clinical proof-of-concept demonstrated in a pilot study in PMN

Budoprutug (TNT119) is an anti-CD19 mAb bioengineered with picomolar binding affinity for CD19 and a low-fucosylated Fc region for enhanced ADCC.



Clinical proof-of-concept was demonstrated in a pilot study in patients with moderate PMN.[1,2]

- Phase 1b trial enrolled 5 patients with moderate PMN with:
  - Median (range) PLA2R Ab 76.3 RU/mL (52.9-82.5), n=3/5
  - Median (range) 24hr UPCR 3.1 g/g (2.5-6.6)
- Budoprutug was well tolerated with no study discontinuations due to an adverse event, and no dose-limiting toxicities
- By **Week 12**, 5/5 patients achieved >95% peripheral B-cell depletion, and 1/3[a] patients with PLA2R Ab at baseline achieved immunologic remission (<14 RU/mL)
- By **Week 48**, 3/3[a] achieved immunologic remission; 3/5 and 2/5 achieved complete and partial clinical remission, respectively
- **Long-term** disease control (>3 years) after initial dosing observed in 4 patients with available data

ADCC = antibody-dependent cellular cytotoxicity, mAb = monoclonal antibody, PLA2R = phospholipase A2 receptor, PMN = primary membranous nephropathy, UPCR = urine protein-to-creatinine ratio

1. Cortazar ASN 2024; 2. Cortazar ASN 2025; [a]3/5 patients were PLA2R Ab positive at baseline

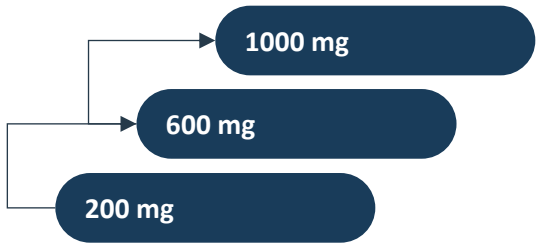
PrisMN: Phase 2 Study Design and Objectives

Global, open-label, dose escalation study enrolling patients with moderate to severe PMN designed to further evaluate the efficacy and safety of budoprutug in PMN

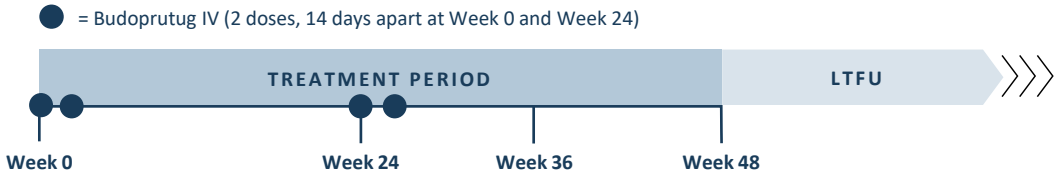
Dose escalation starts at the previous Phase 1b dose and escalates to 1000 mg

OPEN-LABEL, DOSE-ESCALATION STUDY N = 45

15 patients per cohort, enrolled sequentially



Budoprutug administration



Study Objectives

Primary

- Safety & tolerability

Secondary

- Preliminary PK and PK/PD
- PD markers (B cells, anti-PLA2R, total Ig)
- Preliminary efficacy: complete and partial remission at week 48 (UPCR and eGFR)

Population

- Age 18-75
- Confirmed diagnosis of PMN, no secondary causes of MN
- PLA2R antibody positive or negative if other features of chronic disease present, e.g. nephrotic range proteinuria
- UPCR ≥ 2.0 g/g on 2 consecutive urine samples
- eGFR ≥ 35 mL/min/1.73m^2
- ≥ 6 months since any prior B-cell depleting agent
- Adequate trial of maximally tolerated ACEi/ARB, with a stable dose for ≥ 4 weeks prior to enrollment

NCT07096843; Cortazar ERA 2026

ACEi = angiotensin converting enzyme inhibitor, ARB = angiotensin receptor blocker, eGFR = estimated glomerular filtration rate, Ig = immunoglobulin, IV = intravenous, LTFU = long-term follow-up PLA2R = phospholipase A2 receptor; PD = pharmacodynamics, PK = pharmacokinetics, PMN = primary membranous nephropathy, UPCR = urine protein-to-creatinine ratio

PrisMN: Baseline Characteristics and Demographics

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Moderate to severe patient population with high proteinuria and PLA2R Ab levels at baseline

	200 mg (N=14)	600 mg (N=15)
Age, years (median, range)	52.5 (31-63)	45 (24-72)
Sex, n (M/F)	12/2	10/5
Race, n (Asian/Black/White/Other)	2/0/12/0	4/0/11/0
Body weight, kg (median, range)	91.9 (56-125.2)	83.0 (66-145)
Time since diagnosis, months (median, range)	23.5 (2.3-315.1)	9.1 (1.8-237.7)
Prior therapy:	**N=14**	**N=13**[e]
Corticosteroids, n (%)	8 (57%)	4 (31%)
Systemic immunotherapy[a]**,** n (%)	10 (71%)	3 (23%)
Rituximab, n (%)	4 (29%)	3 (23%)
ACEi/ARB*, n (%)	14 (100%)	15 (100%)[e]
Baseline:		
PLA2R Ab, RU/mL Median (range) Mean ± SD <175 RU/mL, n	 155.1 (27.8-1335.6) 348.4 ± 395.3 8 (57%)	 173.4 (14.9-753.4)[c] 244.5 ± 231.0[c] 5 (56%)[c]
24hr UPCR, g/g (median, range)	6.8 (2.8-13.4)[b]	5.2 (2.4-11.1)[d]
Serum albumin, g/dL (median, range)	2.5 (1.5-3.2)	2.4 (1.8-3.6)[d]
Serum creatinine, mg/dL (median, range)	1.28 (0.7-1.98)	1.33 (0.62-2.48)[d]
eGFR, mL/min/1.73m² (median, range)	60.5 (40-119)	57 (30-124)[d]

**prior and concomitant*

ACEi = angiotensin converting enzyme inhibitor, ARB = angiotensin receptor blocker, eGFR = estimated glomerular filtration rate, PLA2R = phospholipase A2 receptor; UPCR = urine protein-to-creatinine ratio
[a]includes cyclophosphamide, calcineurin inhibitors, and mycophenolic acid; [b]n=13, one patient without available baseline 24hr UPCR, [c]n=9, 2 patients had PLA2R Ab <2 RU/mL, 4 without available central lab data; [d]n=11, central lab data not available for 4; [e]n=13 for prior PMN therapy (PMN treatment history pending EDC entry for 2 patients); ACEi/ARB assessed in all 15 patients

PrisMN: Safety

200 mg and 600 mg doses have been generally well tolerated

	200 mg	600 mg
N	14	15
Exposure summary		
Doses of budoprutug received, median (min, max)	4 (1, 4)[a]	2 (1, 2)[f]
Median (min, max) follow-up *as of October 7, 2026*	27.7 weeks (20.9, 46.3)	9.1 weeks (2.3, 18.1)
Adverse event summary		
TEAEs, n (%) of patients	11 (79%)	10 (67%)
TEAEs related to study treatment, n (%) of patients[b]	3 (21%)	5 (33%)
Discontinuations due to an AE	0	0
Serious adverse events, treatment emergent	1[c]	0
Deaths	0	0

	200 mg	600 mg
N	14	15
Adverse events of special interest, patients (events)		
Infusion-related reactions	1 (1)[d]	2 (5)[d]
Neutrophil count <500/mm^3	1 (2)[e]	0
Serious infections	0	0
Acute kidney injury	0	1 (1)[g]
Thromboembolic events	0	0[h]

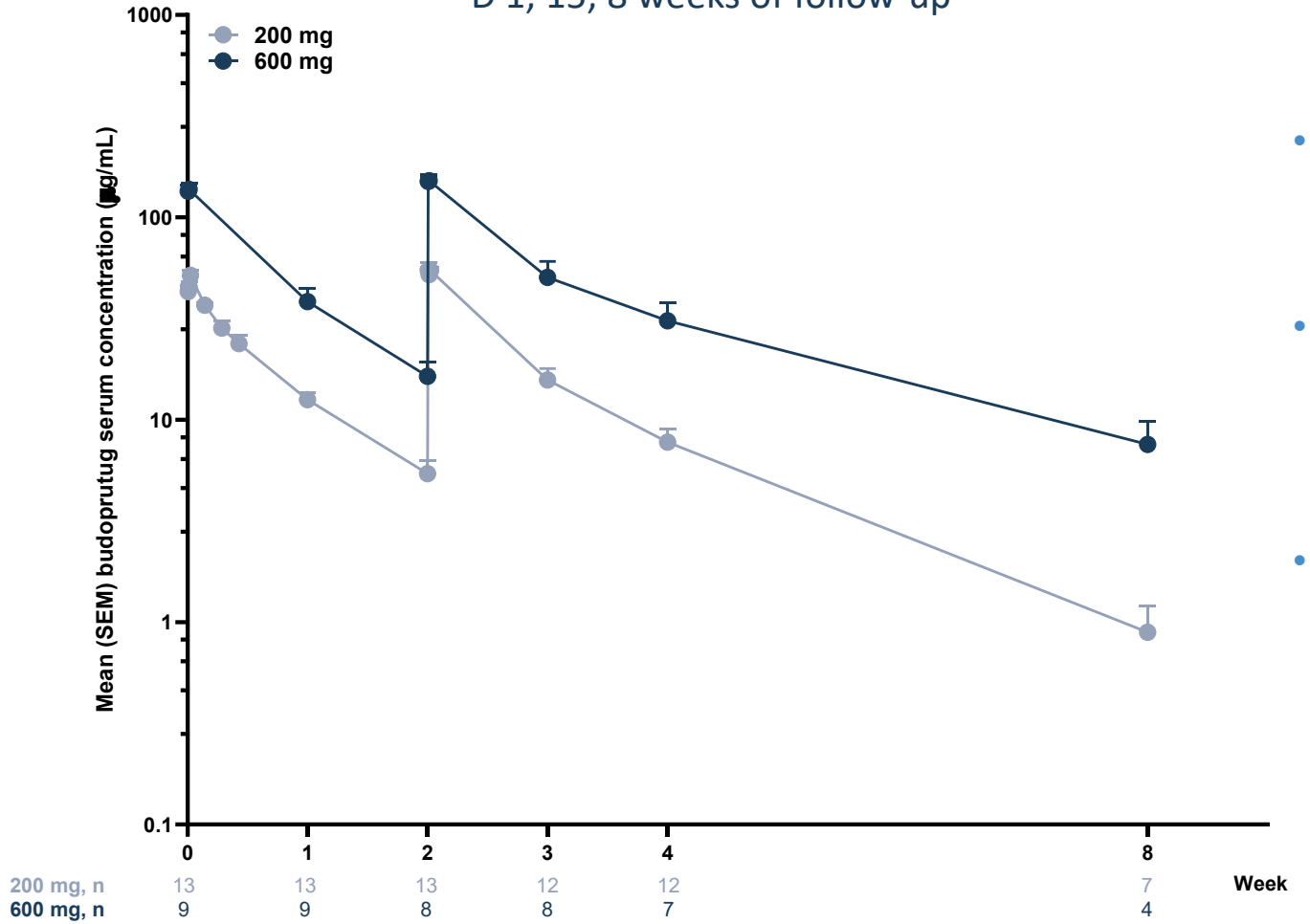
- Most adverse events were mild to moderate (Grade 1 or 2), with no treatment-related serious adverse events, adverse events leading to treatment discontinuation, or deaths reported
- No hypogammaglobulinemia observed; one patient experienced two events of neutropenia in the 200 mg cohort

AE = adverse event, TEAE = treatment-emergent adverse event,
[a]one patient received only one dose of budoprutug and withdrew from the study on Day 15 for logistical reasons; 8 patients received 4 doses as of 7 October 2026; [b] TEAEs related to study treatment included: infusion-related reaction (6), common cold (2), elevated CK enzyme (1), sinusitis (1), fatigue (1), and neutropenia (2) and leukopenia (1) in the same patient; [c] umbilical hernia (unrelated); [d] 200 mg: Grade 2; 600 mg: Grade 1 (1 event) and Grade 2 (4 events); [e] downgraded from initial SAE assignment; [f] Day 15 dose for 1 patient (visit 28 September 2026) pending EDC entry; [g] Grade 2, unrelated, resolved; [h] one ischemic stroke (SAE) occurred before the first dose in the 600 mg cohort and is not treatment emergent.

PrisMN: Pharmacokinetics

Baseline UPCR impact on clearance and support for evaluation of higher doses

Mean (SEM) budoprutug serum concentration
D 1, 15; 8 weeks of follow-up



- Population PK analysis across six budoprutug studies (N≈120) identified baseline **UPCR as a significant covariate of clearance**[1]
- In PrisMN patients with nephrotic-range proteinuria (median baseline 24hr UPCR 5-7 g/g), **linear clearance is estimated to be ≥2-fold higher than in non-proteinuric individuals**
- These findings support **evaluation of higher doses (600 and 1000 mg) in PMN**

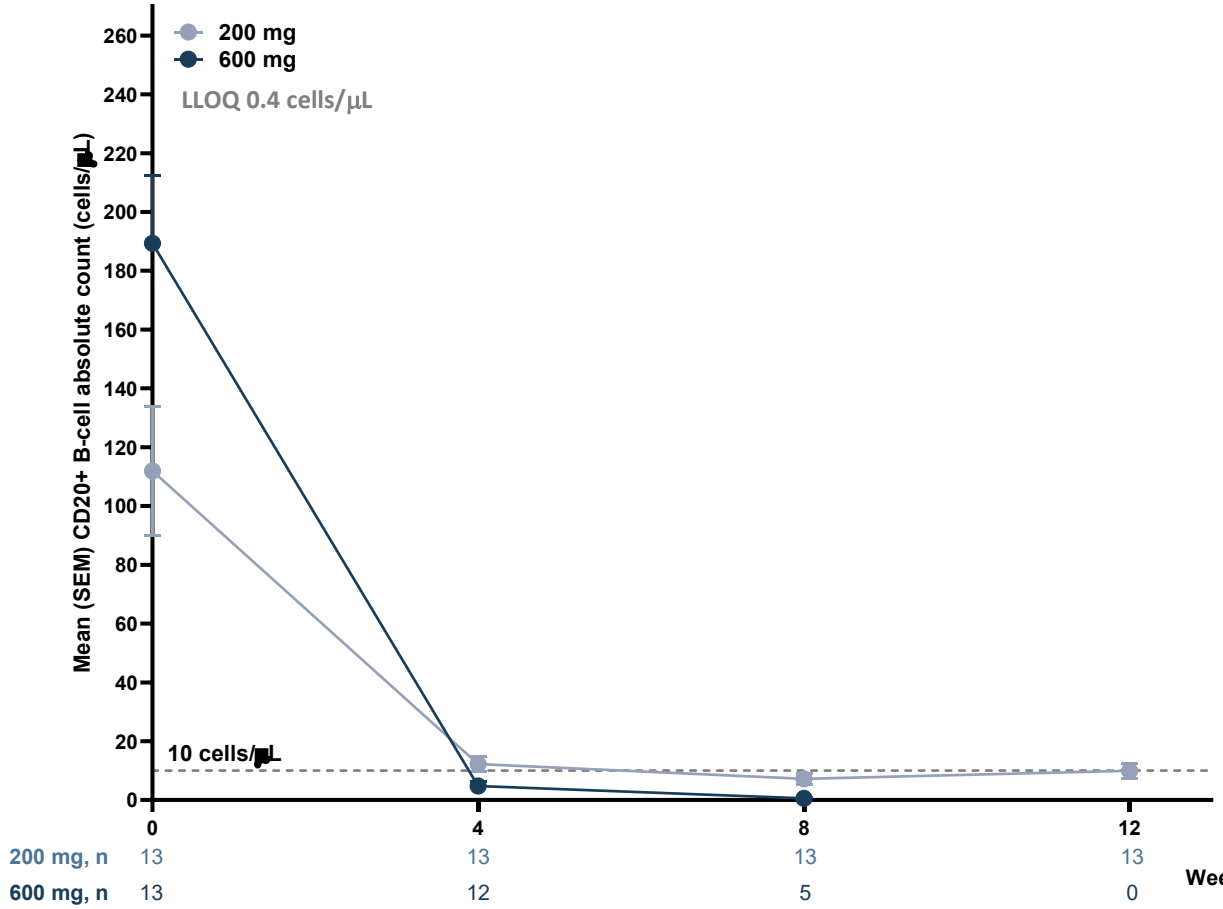
1. Data on file

D = day, PK = pharmacokinetics, PMN = primary membranous nephropathy, SEM = standard error of the mean, UPCR = urine protein-to-creatinine ratio

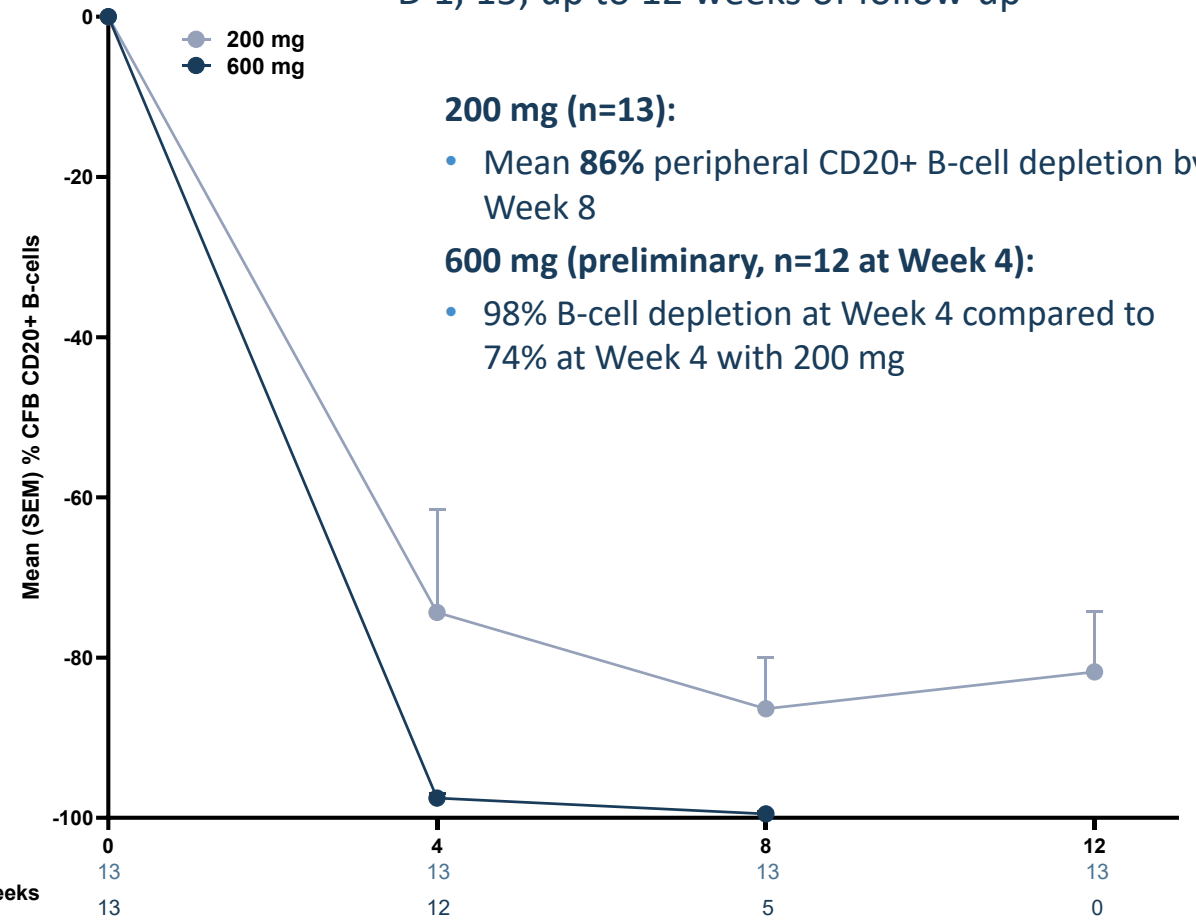
PrisMN: B-Cell Depletion

Deeper B-cell depletion with 600 mg of budoprutug compared to 200 mg

Mean (SEM) peripheral CD20+ B-cell depletion
D 1, 15; up to 12 weeks of follow-up



Mean (SEM) %CFB CD20+ B-cells
D 1, 15; up to 12 weeks of follow-up



200 mg (n=13):

- Mean **86%** peripheral CD20+ B-cell depletion by Week 8

600 mg (preliminary, n=12 at Week 4):

- 98% B-cell depletion at Week 4 compared to 74% at Week 4 with 200 mg

CFB = change from baseline, D = day, LLOQ = lower limit of quantification, SEM = standard error of the mean

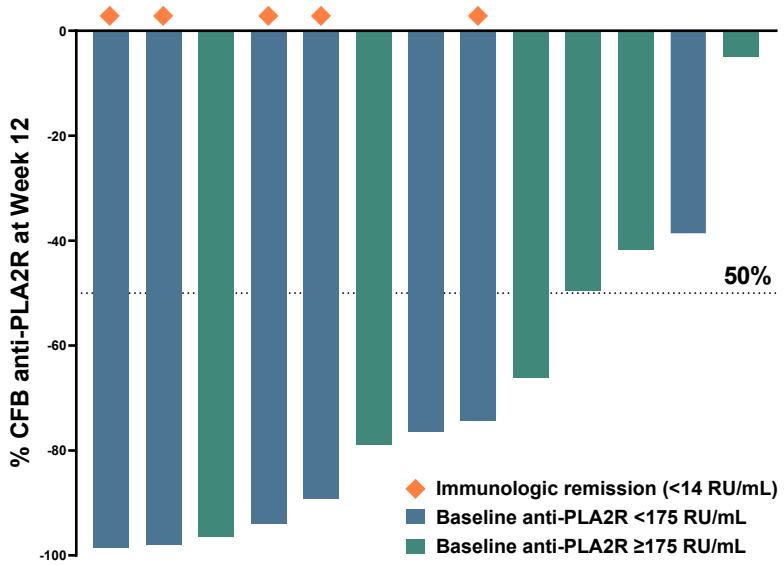
PrisMN: Anti-PLA2R, 24hr UPCR and Serum Albumin

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Low dose budoprutug (200 mg) demonstrated encouraging reductions in anti-PLA2R antibody levels and early positive signal for 24hr UPCR and serum albumin at Week 12

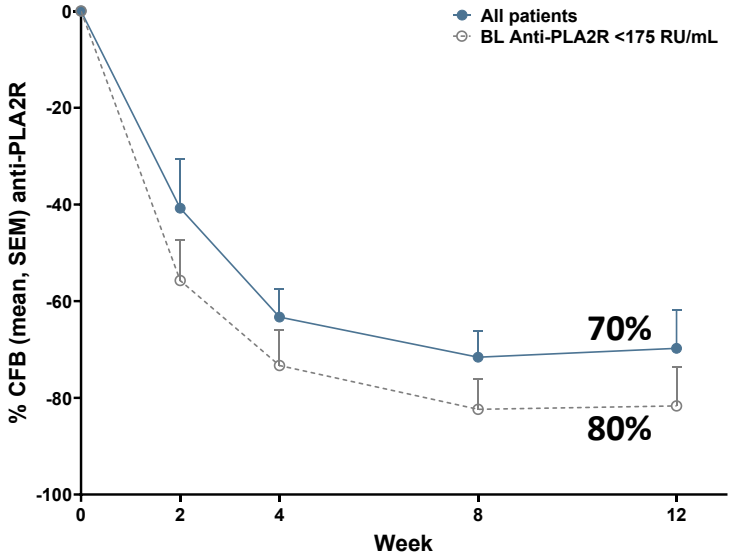
% CFB anti-PLA2R at Week 12

Individual participants



- Immunologic remission (<14 RU/mL) achieved in 5/13 (38%) overall and in 5/7 (71%) of pts with <175 RU/mL anti-PLA2R at BL

% CFB mean (SEM) anti-PLA2R over 12 weeks

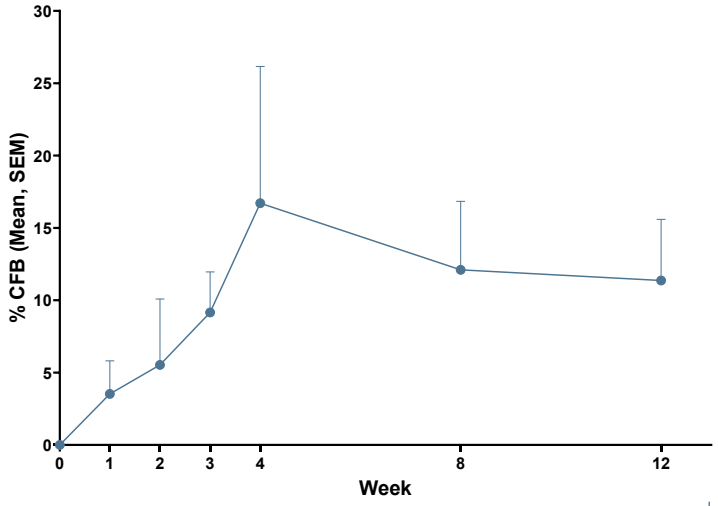


- ≥50% reduction in anti-PLA2R observed in 69% of pts overall, and in 86% of pts with <175 RU/mL anti-PLA2R at BL

24hr UPCR at Week 12

24hr UPCR	All pts	Pts w/ <175 RU/mL at BL
n	12	7
≥25% reduction, n (%)	5 (42%)	3 (43%)

% CFB mean (SEM) serum albumin over 12 weeks



200 mg D 1, 15; 12 weeks of follow-up , N=13 for all time points for anti-PLA2R; N=12 for 24hr UPCR (one patient is missing baseline 24hr UPCR); BL = baseline; CFB = change from baseline, SEM = standard error of the mean, UPCR = urine-to-protein creatinine ratio

PrisMN: Summary and Key Takeaways

Encouraging early data at the lowest dose level; enrollment and follow-up are continuing

- Targeting **CD19** is a potentially disease-modifying approach in PMN
- **Budoprutug**, an investigational **anti-CD19 mAb**, demonstrated promising pharmacodynamic and durable (>3 years) clinical responses in a Phase 1b study in patients with moderate PMN
- **PrisMN Phase 2** study is ongoing and enrolling patients with **moderate and severe, treatment-experienced PMN**
  - The enrolled patients had high proteinuria and PLA2R Ab levels at baseline
- Budoprutug has been **generally well tolerated** at doses of up to 600 mg in this study
- **Promising PLA2R Ab reduction** and immunologic remission rate **consistent with Phase 1b observations at Week 12**
- **Dose-dependent increases in exposure and B-cell depletion observed**; confirmed higher clearance in proteinuric population justifies exploration of higher doses
- Enrollment is ongoing in the 1000 mg dose cohort

mAb = monoclonal antibody, PLA2R = phospholipase A2 receptor, PMN = primary membranous nephropathy