A Phase 1/2 Multicenter Study to Investigate the Safety, Tolerability, Pharmacokinetics and Pharmacodynamics of BION-1301 in Healthy Volunteers and Adults with IgA Nephropathy

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Immunoglobulin A Nephropathy (IgAN):
- IgAN is the leading cause of primary glomerulonephritis, with approximately 2.5 per 100,000 individuals per year worldwide1
- Approximately 30-45% of IgAN patients progress to end-stage kidney disease (ESKD) over a period of 20-25 years2-5
- Proteinuria is strongly associated with kidney disease progression in IgAN6-7

BION-1301 is a novel humanized monoclonal antibody that binds and blocks APRIL

- Blocking APRIL with BION-1301 is a potentially disease-modifying mechanism to deplete Gd-IgA1 and prevent pathogenic immune complex formation
- BION-1301 was well-tolerated in patients with IgAN and resulted in depletion of Gd-IgA1 and sustained, clinically meaningful proteinuria reduction by 12 weeks of treatment11
- Phase 1 bioavailability study in healthy volunteers (HV) supports SC dosing12

Key Eligibility Criteria, Cohort 2 (Currently Enrolling):
- Biopsy-proven IgAN diagnosis within past 10 years
- Total protein excretion ≥ 0.5 g/24h OR UPCR ≥ 0.5 g/g based on 24-hour urine collection at screening
- eGFR ≥ 30 mL/min/1.73 m²
- Stable/optimized dose of RASi for ≥ 3 months prior to screening (or intolerant to RASI)

The current design of the Phase 1/2 study incorporating SC dosing provides improved patient convenience and will enable generation of extended safety, PK, immunogenicity, PD and preliminary efficacy data for the use of BION-1301 in patients with IgAN

APRIL, A Proliferation Inducing Ligand:
- Is a TNF superfamily cytokine that drives IgA class switching and survival of IgA-secreting plasma cells in IgAN8
- Higher APRIL levels in patients with IgAN are correlated with higher pathogenic galactose-deficient IgA1 (Gd-IgA1), proteinuria and lower eGFR9-10

BION-1301 in IgAN

In a 3-phase part 1/2 study (ADU-CL-19; NCT03945318), the completed Parts 1 and 2 were blinded, placebo-controlled single and multiple ascending (SAD, MAD) dose designs in HVs.

Part 1 SAD in healthy volunteers (up to 1350 mg) Completed
Part 2 MAD in healthy volunteers (up to 450 mg) Completed

Objectives of Parts 1 and 2 included:
- Safety, tolerability, pharmacokinetics, immunogenicity and biomarker effects in healthy volunteers and IgAN patients
- Proof of mechanism (free APRIL, IgA and Gd-IgA1)
- Explore dose/schedule (exposure) necessary to achieve reduction in IgA and Gd-IgA1

BION-1301 Phase 1/2 Study
Ongoing Part 3 in Patients with IgAN

ADU-CL-19 Phase 1/2 study Part 3 (NCT03945318) is a multicenter (US, UK, South Korea), multicohort, open-label study in up to 40 patients with IgAN

Study Objectives:
- Safety, tolerability, PK, immunogenicity, biomarker effects and preliminary effect on proteinuria in patients with IgAN
- Proof of mechanism
- Proof of concept
- Explore dose/schedule, intravenous (IV) and subcutaneous (SC) administration

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