BION-1301 Trial in Progress

ADU-CL-19 A Phase 1/2, Multicenter Trial to Investigate the Safety, Tolerability, Pharmacokinetics, and Pharmacodynamics of BION-1301 in Healthy Volunteers and Adults with IgA Nephropathy

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Introduction: Role of APRIL and BION-1301 in IgA Nephropathy

IgA nephropathy (IgAN) is a chronic autoimmune inflammatory glomerulopathy

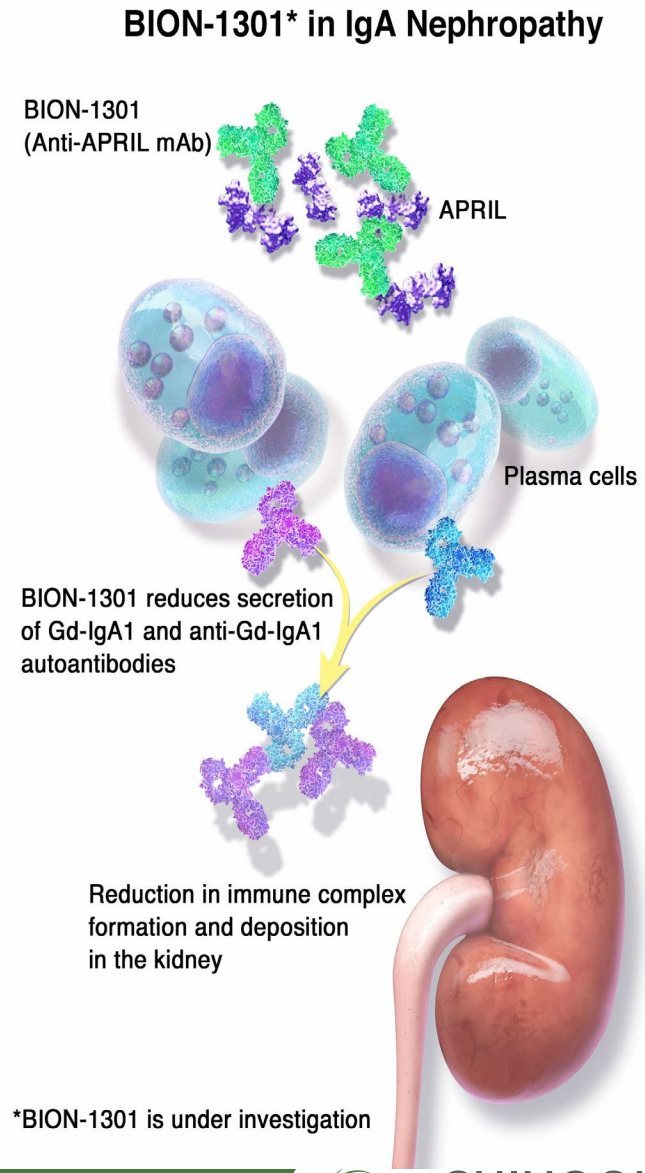
- B cells of patients with IgAN produce galactose-deficient IgA1 (Gd-IgA1)
- In patients with IgAN, Gd-IgA1 gives rise to autoantibody production
- Gd-IgA1–autoantibody complexes deposit in the kidneys, resulting in complement activation, inflammation and subsequent renal damage

A PRoliferation Inducing Ligand (APRIL) is a signaling molecule that regulates B cell immune responses

- APRIL binds to receptors BCMA and TACI on B cells to drive IgA class-switch and proliferation/survival of IgA producing plasma cells
- Patients with IgAN have significantly higher levels of APRIL than normal
- Higher APRIL levels in IgAN patients correlate with poor prognosis
- A polymorphism in the APRIL gene confers IgAN susceptibility

BION-1301

- Novel humanized monoclonal antibody that binds and blocks APRIL



Schena FP, Nistor I, Semin Nephrol 2018, 38(5):435-442; Magistroni et al., Kidney Intl (2015) 88:974-89;
Ilyas M. Pediatric IgA nephropathy. Medscape. 2017. https://emedicine.medscape.com/article/981516-overview

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Methods: BION-1301 ADU-CL-19 Merged Phase 1 and 2 Studies

ADU-CL-19

- Part 1 SAD in healthy volunteers (up to 1350 mg) — **Completed**
- Part 2 MAD in healthy volunteers (up to 450 mg) — **Completed**
- Part 3 Cohort 1 in IgAN patients: 450 mg q2wk IV, up to 52 wks — **Enrolling**
- Part 3 Cohort 2 in IgAN patients: Dose/Schedule TBD, SC, up to 52 wks — **Not yet enrolling**
- Part 3 Optional Cohort 3 in IgAN patients: Dose/Schedule TBD, SC, up to 52 wks — **Not yet enrolling**

Objectives

- Safety, PK, immunogenicity and biomarker effects in healthy volunteers and IgAN patients
- Proof of mechanism (free APRIL, IgA and Gd-IgA1)
- Explore dose/schedule (exposure) in patients necessary to achieve reduction in IgA & Gd-IgA1
- Assess changes in renal function in IgAN patients

Objectives

✓ Incorporate SC dosing starting with Cohort 2

Modifications

✓ Simplify operational complexity by combining ADU-CL-19 and ADU-CL-14 total duration 1 year

✓ Add optional 3rd Cohort of IgAN patients

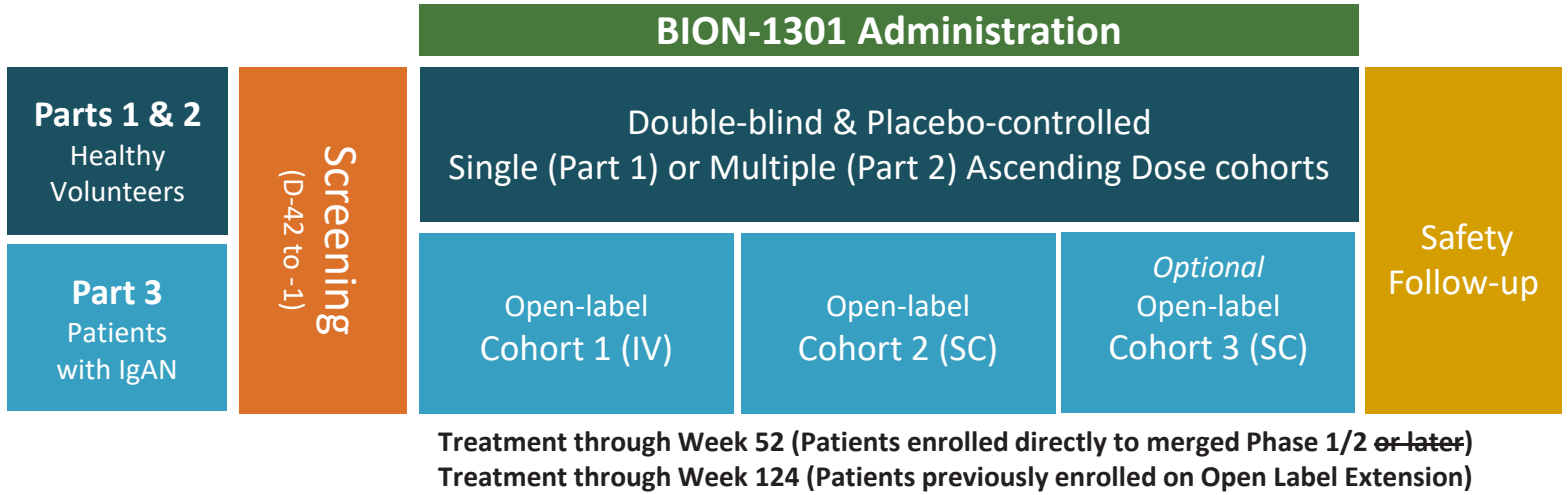
✓ Increase sample size: up to 40 patients

✓ Add South Korean sites to those in US/UK

Methods & Results: BION-1301 Study Eligibility & Schema

Key Eligibility Criteria

- ✓ Age 18 and older
- ✓ Biopsy-proven IgAN within past 10 years
- ✓ UPCR ≥ 0.5 g/24h OR UPCR ≥ 0.5 g/g
- ✓ eGFR over 45 mL/min per 1.73 m^2
- ✓ Stable on an optimized dose of ACE/ARB for ≥ 3 months prior to screening (or intolerant to ACE/ARB)
- ✓ No history of other chronic kidney disease or any transplantation
- ✓ No history of secondary forms of IgAN
- ✓ No Type 1 or 2 Diabetes



Treatment through Week 52 (Patients enrolled directly to merged Phase 1/2 ~~or later~~)
Treatment through Week 124 (Patients previously enrolled on Open Label Extension)

Patient- Centric Trial:

- Compensation for 24-hour urine collection
- Reimbursement for trial related expenses.
- Subcutaneous injections in Part 3 allow for less time at site

Results

- Results from Parts 1 & 2 in healthy volunteers were presented at ERA-EDTA 2020, poster #P0500
- Interim results from Part 3 are being presented at ERA-EDTA 2021 in a Free Communication, on Tuesday, June 8th during the "Treatment & outcome of glomerulonephritis" session (Session ID FC 11) from 8:30 – 10:00 am CEST

Clinicaltrials.gov: NCT03945318

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