Title:
NAVIGATE: A Phase 2b, Randomized, Double-blind, Placebo-controlled, Multicenter Dose-ranging Trial to Evaluate the Efficacy and Safety of CD388 for Prevention of Influenza Illness in Healthy Adults

Background:
CD388 is a novel long-acting drug–Fc conjugate (DFC) displaying multiple zanamivir moieties on a proprietary Fc domain optimized for extended half-life (approximately XX days in humans). Unlike vaccines, CD388 acts independently of host immunity, offering the potential for single-dose, season-long protection against influenza A and B virus illness.

Objectives:
To evaluate the efficacy and safety of a single subcutaneous dose of CD388 for prevention of laboratory-confirmed influenza in healthy, unvaccinated adults.

Methods:
A randomized, double-blind, placebo-controlled trial conducted at 58 sites in the U.S. and U.K. during the 2024–2025 influenza season. Adults aged 18–64 years without risk factors for severe influenza were randomized 1:1:1:1 to receive CD388 (150 mg, 300 mg, or 450 mg) or placebo. The primary endpoint was preventive efficacy (PE) over 24 weeks against RT-PCR–confirmed acute influenza illness, defined by concurrent fever (≥38.0°C) and symptoms. Safety and tolerability were assessed by adverse events and injection site reactions (ISRs).

Results:
Among 5,040 participants (mean age ~39 years, 54% female), CD388 met the primary endpoint across all dose groups. Compared to the influenza illness frequency of 2.8% in placebo recipients, CD388 reduced the risk by 57.7% (150 mg), 61.3% (300 mg), and 76.1% (450 mg) ($p=0.0050$, 0.0024, <0.0001), respectively. Efficacy remained significant across secondary endpoints, including a 71.1% PE using broader ILI definitions and 68.6% PE in the pooled 300/450 mg groups ($p<0.0001$). Adverse event rates were balanced (~41%) across groups, with no drug-related serious adverse events. ISRs , occurring in 21.5–25.2% of CD388 and placebo recipients, were mild and short-lived.

Conclusions:
CD388 demonstrated good tolerability and robust, statistically significant, single-dose protection against influenza illness over 24 weeks in healthy, unimmunized adults. These data support CD388 as a promising once-per-season antiviral strategy, particularly for high-risk populations and those with poor vaccine responsiveness. Full results, including subgroup analyses and extended follow-up, will be discussed at the meeting.

Keywords:
Influenza, prophylaxis, long-lasting antiviral, CD388, randomized controlled trial, drug-Fc conjugate