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Title: CNM-Au8 Phase 2 VISIONARY-MS Trial Results

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Abstract

CNM-Au8, an oral suspension of catalytically-active clean-surfaced gold nanocrystals, supports brain energy metabolism resulting in neuroprotection and remyelination.

VISIONARY-MS was a Phase 2, randomized, double-blind, placebo-controlled study assessing the efficacy and safety of CNM-Au8 versus placebo in stable relapsing MS patients on top of background DMTs. Enrolled subjects were randomized 1:1:1 to CNM-Au8 15mg/day, 30mg/day, or placebo. Key inclusion criteria: age 18-55 years, diagnosis within $\leq$15 years, clinically stable $\geq$6-months, best corrected-low contrast letter acuity with 2.5% low-contrast Sloan letter chart of 20/40 or worse, and mean RNFL thickness $\geq$70 μm in both eyes. The primary outcome was change in the LCLA score in the most affected eye through week 48. Secondary outcomes assessed the modified MSFC including T25FWT, SDMT, 9HPT (dominant and non-dominant), and LCLA (affected and fellow eye). Primary analyses were conducted in the modified intent to treat population, which censored invalid data from 1 of 11 clinical trial sites. The trial ended prematurely due to COVID-19 pandemic related enrolment challenges, enrolling 73 of 150 planned participants. The threshold for significance was prespecified at p=0.10.

The primary outcome, LCLA LS-mean difference versus placebo in the affected eye, was 3.13 (95% CI: -0.08 to 6.33; p=0.056). Key secondary outcomes were significant: LS-mean difference of the mean standardized mMSFC score: 0.28 (95% CI: 0.04 to 0.52; p=0.0197); and LS-mean difference of the mMSFC average ranked sum score: 13.4 (95% CI: 2.8 to 23.9; p=0.0138). Exploratory endpoints included multi-focal VEP, MRI, and OCT, which demonstrated improvement. CNM-Au8 was well tolerated. Treatment emergent adverse events were transient, and predominantly mild-to-moderate in severity. There were no serious adverse events assessed as related to CNM-Au8.

These data provide evidence for improved neurological function in stable RMS patients treated with CNM-Au8 as adjunct to standard-of-care and support continued investigation of CNM-Au8.

Disclosures

Michael Barnett and Alexander Klistorner are consultants to Sydney Neuroimaging Analysis Centre, which was contracted to provide blinded analysis of MRI and VEP data in

VISIONARY-MS. Robert Sergott is a consultant for Annesley EyeBrain Center, which was contracted to provide blinded quality review of LCLA data and blinded analyses of OCT data in VISIONARY-MS. Austin Rynder, Karen S. Ho, Jacob Evans, Jeremy Evans Alan Hartford, Robert Glanzman, and Michael Hotchkin are employees of Clene Nanomedicine, Inc.