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Forward Looking Statements

This presentation contains "forward-looking statements" within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, and Section 27A of the Securities Act of 1933, as amended, which are intended to be covered by the "safe harbor" provisions created by those laws. Clene's forward-looking statements include, but are not limited to, statements regarding our or our management team's expectations, hopes, beliefs, intentions or strategies regarding our future operations. In addition, any statements that refer to projections, forecasts or other characterizations of future events or circumstances, including any underlying assumptions, are forward-looking statements. The words "anticipate," "contemplate," "continue," "could," "estimate," "expect," "intends," "may," "might," "plan," "possible," "potential," "predict," "project," "should," "will," "would," and similar expressions may identify forward-looking statements, but the absence of these words does not mean that a statement is not forward-looking. Forward-looking statements in this presentation may include, for example, statements about our drug candidate's trial results and potential impact on disease states, and other factors detailed under "Risk Factors" in our most recent Annual Report on Form 10-K and any subsequent Quarterly Reports on Form 10-Q. These forward-looking statements represent our views as of the date of this presentation and involve a number of judgments, risks and uncertainties. We anticipate that subsequent events and developments will cause our views to change. We undertake no obligation to update forward-looking statements to reflect events or circumstances after the date they were made, whether as a result of new information, future events or otherwise, except as may be required under applicable securities laws. Accordingly, forward-looking statements should not be relied upon as representing our views as of any subsequent date. As a result of a number of known and unknown risks and uncertainties, our actual results or performance may be materially different from those expressed or implied by these forward-looking statements. Some factors that could cause actual results to differ include our substantial dependence on the successful commercialization of our drug candidates, if approved, in the future; our inability to maintain the listing of our common stock on Nasdaq; our significant net losses and net operating cash outflows; our ability to demonstrate the efficacy and safety of our drug candidates; the clinical results for our drug candidates, which may not support further development or marketing approval; actions of regulatory agencies, which may affect the initiation, timing and progress of clinical trials and marketing approval; our ability to achieve commercial success for our drug candidates, if approved; our ability to obtain and maintain protection of intellectual property for our technology and drug candidates; our reliance on third parties to conduct drug development, manufacturing and other services; our limited operating history and our ability to obtain additional funding for operations and to complete the licensing or development and commercialization of our drug candidates; the impact of epidemics, pandemics, and the ongoing conflicts between Ukraine and Russia and Israel and Hamas on our clinical development, commercial and other operations; changes in applicable laws or regulations; the effects of inflation; the effects of staffing and materials shortages; the possibility that we may be adversely affected by other economic, business, and/or competitive factors; and other risks and uncertainties set forth in "Risk Factors" in our most recent Annual Report on Form 10-K and any subsequent Quarterly Reports on Form 10-Q. In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this presentation, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain, and you are cautioned not to rely unduly upon these statements. All information in this presentation is as of the date of this presentation. The information contained in any website referenced herein is not, and shall not be deemed to be, part of or incorporated into this presentation.



Focused on Improving Mitochondrial Health and Protecting Neuronal Function to Treat Neurodegenerative Diseases



- The World Health Organization predicts neurodegenerative diseases will become the second-most prevalent cause of death within the next 20 years.
- A therapeutic breakthrough is urgently needed.
- In neurodegenerative diseases, impaired mitochondrial activity and compromised cellular metabolism can lead to neuronal death.





A NEW APPROACH

- Clene is pioneering catalytic nanotherapeutics to treat neurodegenerative diseases, such as amyotrophic lateral sclerosis, Parkinson's disease and multiple sclerosis.
- By targeting the improvement of mitochondrial function via the nicotinamide adenine dinucleotide pathway, Clene's first-in-class drug, CNM-Au8, is pioneering a new way to restore and protect neuronal function.





Building the Clinical Case for Neuroprotection & Remyelination







Growing Body of Clinical Evidence Across ALS and MS Supports CNM-Au8 **Therapeutic Potential to Treat Neurodegenerative Diseases**

Proprietary Nanotherapeutic Manufacturing Strong IP: 150+ granted patents PLUS Trade Secrets



What is CNM-Au8®?

CNM-Au8 Nanocrystal Suspension 60 mL per bottle (once daily)



CNM-Au8 Attributes:

>100 Trillion Nanocrystals per 60 mL dose (at 30 mg)

- ✓ Nanocrystal suspension
- Orally administered (or by feeding tube)
- Targets energy metabolism and oxidative stress
- Blood-brain-barrier penetrant



CNM-Au8 Surface Catalysis Supports Mitochondrial Function





Mitochondrial Function

Neuronal Survival And Function



Safety Review

- Over **700 participant-years** of exposure to CNM-Au8
- CNM-Au8 long-term treatment duration up to 5.1 years
- TEAEs (treatment-emergent adverse events) predominantly assessed as mild-to-moderate severity, and transient
- No related SAEs (serious adverse events) related to CNM-Au8 across all clinical programs
- No temporal association of increasing TEAE or SAE incidence based on exposure duration
- 'No Adverse Effect Level' (NOAEL) findings across all toxicology studies up to maximum feasible dose













RepairMS Stable Relapsing MS

Non-Active Progressive MS



Despite Missed Primary Endpoints, Concordant Survival Outcomes with CNM-Au8 Treatment in ALS are Promising



	RESCUE-ALS	RESCUE-OL
ALS Participant Demographics	Early-to-Mid-Stage (n=45)	Early-to-Mid-St (n=36)
Duration	36-weeks	Up to 234 wee
Primary/ Secondary Endpoints	 MUNIX % change MUNIX total change FVC (% predicted) 	NA
Survival		
Delayed Time to Clinical Worsening		
Preserved Function (ALSFRS-R)		
Progression Biomarkers	↓p75 (trend)	Not routinely collected
Safety	>700 Years of Participant I	

Data on File, Clene Nanomedicine, Inc.



CNM-Au8 30 mg (n=59) vs. Placebo Full Analysis Set (n=162)





Time to Event | Improved Survival During the OLE to Month 12 HEALEY ALS Platform Trial CNM-Au8 30 mg

Time to Death or PAV

HEALEY ALS Platform Trial | Kaplan-Meier Estimator | Open Label Extension Prespecified Covariate Adjusted Hazard Model at Week 52 CNM-Au8 30 mg (n=59) vs. Placebo Within Regimen (n=41)



Prespecified covariates included: age, months from symptom onset, pre-treatment ALSFRS-R slope (delta-FRS), riluzole treatment, and edaravone treatment.



Time to Death





CNM-Au8 Delayed Time to Clinical Worsening Events Concordant in Double-Blind Periods of Two Independent Phase 2 Trials



Vucic et al. EClinicalMedicine. 2023 Jun 8:60:102036. Data on File, Clene Nanomedicine, Inc



Delayed Time to Clinical Worsening

Prespecified Exploratory Clinical Composite Endpoint







NfL is a Key Biomarker of **Disease Progression** in ALS Patients



Neurofilament Light Chain (NfL) Protein

Cytoskeletal proteins that provide structure and support for the cell and are highly specific for neurons

Axonal damage: high NfL levels are associated with <u>axonal damage</u>

High NfL in ALS: predicts greater risk of disease progression



Plasma NfL Decline During Double-Blind & Long-Term Treatment HEALEY ALS Platform Trial Double-Blind & Open Label Extension

Double-Blind Period







MMRM includes all evaluable clincial visits. All visits with \geq 10 participants (for either group) are graphed. LS Geometric mean difference: *** p<0.001, ** p<0.01, * p < 0.05, ^ p<0.10



Mixed Model Repeat Measure analyses: HEALEY covariates included time from symptom onset, pre-treatment ALSFRS-R slope, background edaravone and riluzole, and interaction by week.



Evidence Linking Plasma NfL with CNM-Au8 Clinical Benefit

Plasma NfL **Burden** At Baseline

Time to Death or PAV to Month 12

Week 52 post-baseline was a prespecified time point for OLE analyses





Greatest Benefit in Participants with Highest Baseline NfL Burden | Death or PAV HEALEY ALS Platform (Through Month 12) | Upper Tertile & > Median

HEALEY | Upper NfL Tertile

By Baseline Plasma NfL





HEALEY | NfL > Median

83% Risk Reduction



Evidence Linking Plasma NfL with CNM-Au8 Clinical Benefit

Plasma NfL Burden

At Baseline

Time to Death or PAV to Month 12

Week 52 post-baseline was a prespecified time point for OLE analyses





Proportion of Participants Demonstrating NfL Decline at Week 24 Healey ALS Platform Trial End of Double-Blind

CNM-Au8 30 mg Plasma NfL Change at Week 24 (End of Double-Blind) Proportion of Evaluable with NfL Decline











Placebo % with NfL Decline



Long-Term Survival Benefit in Participants with Any NfL Decline at 24-Weeks HEALEY ALS Platform (Through Month 12) | Time to Death or PAV

Hazard Ratio for Death or PAV At 12 Months Post-Baseline

Hazard Ratio for Time to Death or PAV Through Month 12 by Plasma NfL Change from Baseline Threshold (pg/mL) and Missing at Week 24 CNM-Au8 30 mg Treated vs. Original Placebo | HEALEY ALS Platform Trial Prespecified Covariate Adjusted Cox Proportional Hazard Model



Participants with missing W24 NfL Values are included across groups

Prespecified covariates included: age, months from symptom onset, pre-treatment ALSFRS-R slope (delta-FRS), riluzole treatment, edaravone treatment. Post hoc analyses.

Time to Death or PAV In Participants with NfL Decline at Week 24





Evidence Supporting Long-Term Survival Benefit



All-Cause Mortality



Improved Long-Term Survival | HEALEY ALS Platform & Pooled ALS Trials CNM-Au8 30 mg Original Randomization vs. Propensity Matched Controls



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Pooled ALS Trials | Optimal Variable Ratio Matching





Long-Term Survival | Real-World Expanded Access Protocols CNM-Au8 30 mg vs. Propensity Matched Controls (Pooled PRO-ACT, ALS NHC, ANSWER-ALS)

EAP Matching Optimal Variable Ratio (Prespecified)



Data on File, Clene Nanomedicine. Inc.

Propensity Matching: Variable Optimal Ratio Matching

Minimizes global distance of the logit score by assessing the overall set of matches when choosing individual matches

- **Pooled Control Set:** PRO-ACT, ALS Natural History Consortium (ALS NHC), ANSWER-ALS
 - Widest possible universe for control matches
 - 1:3 (active:control) match
- Narrow Logit Caliper Width: 0.1

Matching Covariates:

BMI, Sex, Bulbar Onset, Months from Symptom Onset, Onset Age, Diagnostic Delay (Months), ALSFRS-R Pre-Treatment Slope, ALSFRS-R Total Score, Vital Capacity (% predicted), VC (% predicted) Pre-Treatment Slope, **TRICALS Risk Score**

Survival Cox Proportional HR Model Covariates:

Bulbar Onset, (ii) Onset Age, (iii) Sex, (iv) BMI, (v) Pretreatment ALSFRS-R slope, (vi) ALSFRS-R Total Score, (vii) Diagnostic Delay (in months), (viii) Vital Capacity (% predicted), (ix) Pre-Treatment Vital Capacity Slope, and (x) TRICALS Risk Score



VISIONARY-MS Core Design Elements

Phase 2 Study: 48-Week Placebo-Control Treatment Period 2:1 Randomization (Active [15mg, 30 mg]: Placebo)



- Enrolled stable relapsing remitting MS participants with chronic optic neuropathy on background DMTs
- 92% treated with background DMTs (inc 53% monoclonal antibodies, 32% oral)
- n=73 of 150 planned (~50%) study ended prematurely due to COVID-19 pandemic enrollment challenges
- Modified ITT (mITT) Analysis Population; Pre-specified statistical threshold set at p=0.10
- CNM-Au8 Open Label Extension (OLE) for original active and placebo continued for up-to-96 weeks

Change in Low **Contrast Letter** Acuity (LCLA)



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CNM-Au8 Demonstrated Vision and Global Neurological Improvement in Stable MS patients on DMTs





Change in Low Contrast Letter Acuity (LCLA)



Data on File, Clene Nanomedicine, Inc.





Change in modified MS Functional Composite (mMSFC)

Global Neurological Improvement



Long-Term LCLA Improvement in LTE Participants Low Contrast Letter Acuity

Original Active (CNM-Au8)





CNM-Au8 Improved Information Signal Strength & Speed in the Visual Pathway

Visual Evoked Potentials





Amplitude = Signal Strength Latency = Signal Speed

From the Eye to Visual Cortex

Increased VEP amplitude is associated with improved axonal integrity (more signal); Improved latency is associated with evidence of remyelination (faster conduction velocity)





Long-Term SDMT Improvement in LTE Participants Symbol Digit Modality Test | Working Memory & Cognition

Longitudinal SDMT | Change from Baseline (Total Score) | All Active In LTE Participants Originally Randomized to CNM-Au8 (n=35), mITT Population LS Mean ± SEM, Change from Baseline (Preliminary)







CNM-Au8 Treatment Demonstrated MS Lesion Repair and Promoted Remyelination



T2 Lesion Myelin Water Fraction (Remyelination)





Advanced MRI Techniques

(Axonal Integrity)



LTE: LS mean difference vs. randomization baseline: # p<0.0001, *** p<0.001, ** p<0.01, *p<0.05, ^p<0.10

Clene | CNM-Au8 Path to Regulatory Approval

2024

MID-2024

Global ALS Phase 3 Trial Design Approval

HEALEY ALS OLE ALSFRS/Clin Worsening

Clinical Data up-to-30 months

HEALEY ALS Biomarkers

6mos. & OLE (up to 30 mos.)

VISIONARY-MS OLE

Clinical data up-to-3-yrs



Evidence Supports CNM-Au8 Therapeutic Potential to Treat Neurodegenerative Diseases

CNM-Au8®

a gold nanocrystal suspension, in development as the first cellular energetic catalyst to remyelinate¹ & protect neurological function







Concordant Survival in two Phase2 trials, with NfL Biomarker in HEALEY



Demonstrated global neurological improvement in MS patients on adjunctive DMT standard of care







>700 participant years of **CNM-Au8** clinical exposure

Strong IP: 150 +

patents on nanotherapeutic platform, plus trade secret protection





As of September 30 2024, cash and equivalents on hand (unaudited):

\$14.6

Raised in an RDO on 10/1/2024







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