## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

## FORM 8-K

CURRENT REPORT
Pursuant to Section 13 OR 15(d)
of The Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): August 15, 2022

## Clene Inc.

(Exact name of registrant as specified in its charter)

Delaware (State or Other Jurisdiction of Incorporation) 001-39834 (Commission File Number) 85-2828339 (IRS Employer Identification No.)

6550 South Millrock Drive, Suite G50 Salt Lake City, Utah (Address of Principal Executive Offices)

84121 (Zip Code)

Registrant's telephone number, including area code: (801) 676-9695

	N/A (Former Name or Former Address, if Changed Since Last Report.)
Check	the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:
	Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
	Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
	Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
	Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

## Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, \$0.0001 par value	CLNN	The Nasdaq Capital Market
Warrants, to acquire one-half of one share of Common Stock for \$11.50 per share	CLNNW	The Nasdaq Capital Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company  $\boxtimes$ 

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

#### Item 2.02 Results of Operations and Financial Condition.

On August 15, 2022, Clene Inc. (the "Company") issued a press release announcing its second quarter financial results and recent operating highlights for its quarter ended June 30, 2022. A copy of the press release is furnished as Exhibit 99.1 to this Current Report on Form 8-K (the "Current Report") and is incorporated herein by reference.

The information furnished in this Item 2.02, including Exhibit 99.1, shall not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 (the "Exchange Act"), as amended, or otherwise subject to the liabilities of that section, and shall not be deemed to be incorporated by reference into any filing made by the Company under the Exchange Act or the Securities Act of 1933 (the "Securities Act"), as amended, regardless of any general incorporation language in any such filings, except as shall be expressly set forth by specific reference in such a filing.

#### Item 7.01 Regulation FD Disclosure.

## Corporate Presentation

In connection with the press release announcing the Company's second quarter operating and financial results for its quarter ended June 30, 2022, the Company released an updated corporate presentation (the "Corporate Presentation") on its website, invest.clene.com. A copy of the Corporate Presentation is furnished as Exhibit 99.2 to this Current Report and is incorporated herein by reference. The Company plans to use its website to disseminate future updates to the Corporate Presentation and may not file or furnish a Current Report on Form 8-K alerting investors if the Corporate Presentation is updated.

#### VISIONARY-MS Clinical Trial Topline Results

On August 15, 2022, the Company issued a press release announcing positive topline results for CNM-Au8® in the Phase 2 VISIONARY-MS trial in multiple sclerosis ("MS"). The Company also hosted a conference call and webcast on August 15, 2022 to discuss the VISIONARY-MS topline results. A copy of the press release and presentation are furnished as Exhibit 99.3 and Exhibit 99.4, respectively, to this Current Report and are incorporated herein by reference.

The information furnished in this Item 7.01, including Exhibit 99.2, Exhibit 99.3, and Exhibit 99.4, shall not be deemed to be "filed" for purposes of Section 18 of the Exchange Act, as amended, or otherwise subject to the liabilities of that section, and shall not be deemed to be incorporated by reference into any filing made by the Company under the Exchange Act or the Securities Act, regardless of any general incorporation language in any such filings, except as shall be expressly set forth by specific reference in such a filing

#### Item 9.01 Financial Statements and Exhibits.

#### (d) Exhibits

Exhibit Number	Exhibit Description
99.1	Press Release, dated August 15, 2022, announcing the Company's operating and financial results for its quarter ended June 30, 2022.
99.2	Corporate Presentation.
99.3	Press Release dated August 15, 2022, announcing positive topline results for CNM-Au8 in the Phase 2 VISIONARY-MS trial in multiple sclerosis.
99.4	VISIONARY-MS presentation dated August 15, 2022.
104	Cover Page Interactive Data File (formatted as Inline XBRL).

## SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, hereunto duly authorized.

CLENE INC.

Date: August 15, 2022

By: /s/ Robert Etherington

Robert Etherington

President and Chief Executive Officer

#### Clene Reports Second Quarter 2022 Financial Results and Recent Operating Highlights

- Topline results from the Phase 2 VISIONARY-MS clinical trial with CNM-Au8® met the primary and secondary endpoints of Low Contrast Letter Acuity
  (LCLA) and modified Multiple Sclerosis Functional Composite (mMSFC) compared to placebo over 48 weeks in the mITT population
- Updated data from RESCUE-ALS demonstrate a statistically significant decrease in mortality in participants who entered open-label extension study (5 CNM-Au8 deaths vs. 14 placebo deaths, HR=0.301, p=0.0143)
- Topline results from HEALEY ALS Platform Trial expected this quarter
- Cash, cash equivalents and marketable securities of \$26.3 million as of June 30, 2022
- Entered into a \$3.0 million loan facility from State of Maryland to support development of commercial manufacturing facility

SALT LAKE CITY, August 15, 2022 -- Clene Inc. (Nasdaq: CLNN) (along with its subsidiaries, "Clene") and its wholly owned subsidiary Clene Nanomedicine Inc., a clinical-stage biopharmaceutical company focused on revolutionizing the treatment of neurodegenerative disease, today reported its second quarter 2022 and recent operating highlights.

"We are on the cusp of a transformative period for the Company as we await a key data readout in ALS for our lead asset, CNM-Au8®," said Rob Etherington, President and CEO of Clene. "The ALS patient population is desperate for new treatments to help mitigate the disease course and following the statistically significant survival benefits demonstrated in our open label trial, we are hopeful that we can deliver an effective therapy for people living with ALS."

#### Second Quarter 2022 and Recent Operating Highlights

#### CNM-Au8®, a gold nanocrystal suspension, for the treatment of amyotrophic lateral sclerosis (ALS)

- Topline data from the HEALEY ALS Platform Trial, led by the Sean M. Healey & AMG Center for ALS at Massachusetts General Hospital, are expected this
  quarter.
- Demonstrated statistically significant reduction in mortality in the open-label extension of the RESCUE-ALS trial. As of the July 5, 2022, data cutoff, early CNM-Au8 treatment resulted in a significant survival benefit (5 CNM-Au8 deaths vs. 14 placebo deaths, HR=0.301, p=0.0143). CNM-Au8 was well-tolerated, and the safety profile was consistent with previously reported data.
- Received European Orphan Drug Designation for CNM-Au8 in amyotrophic lateral sclerosis (ALS) from the European Medicines Agency (EMA) Committee for Orphan Medicinal Products (COMP).
- Presented five posters from the RESCUE-ALS trial at the European Network to Cure ALS (ENCALS) conference on June 1-3, 2022. The data included information on the neuroprotective efficacy and survival benefits of CNM-Au8 in ALS as well as on patient quality of life and biomarker data. The posters are available in the Scientific Posters & Presentations section of the Clene website.
- Clene continues to support expanded access programs, providing CNM-Au8 treatment at five clinical sites for up to 55 total participants with ALS.

#### CNM-Au8 for the treatment of multiple sclerosis (MS)

- Reported topline results from the Phase 2 VISIONARY-MS clinical trial with CNM-Au8 that met the primary and secondary endpoints of LCLA and mMSFC compared to placebo over 48 weeks in a modified intent to treat (mITT) population.
  - o Primary endpoint: LCLA letter change in the clinically affected eye (least squares [LS] mean difference, 3.13; 95% CI: -0.08 to 6.33, p = 0.056)
  - o Secondary outcomes:

- mMSFC mean standardized change (LS mean difference, 0.28; 95% CI: 0.04 to 0.52, p = 0.0207)
- mMSFC average rank score (LS mean difference, 13.38; 95% CI: 2.83 to 23.94, p = 0.0138)
- Time to first repeated clinical improvement to Week 48 (45% vs. 29%, log-rank p=0.3991)
- o CNM-Au8 treatment was well-tolerated and there were no significant safety findings reported.
- o Results provide support to advance CNM-Au8 into Phase 3 clinical development.
- As announced in February 2022, the trial was stopped prematurely due to COVID-19 pandemic operational challenges, limiting enrollment to 73 out of the 150 planned participants. Due to the limited enrollment, the threshold for significance was pre-specified at p=0.10 prior to database lock. The primary analysis was conducted in a modified intent to treat (mITT) population, which censored invalid data. The mITT population excluded data from a single site (n=9) with LCLA testing execution errors and the timed 25-foot walk data from one subject with a change in mobility assist device. The ITT results were directionally consistent with the mITT results, although the ITT results were not significant.
- Clene has initiated a second cohort of the more severe non-active, progressive MS population in the REPAIR-MS Phase 2 clinical trial to confirm target engagement following the target engagement demonstrated in the first cohort of relapsing MS patients.

#### CNM-ZnAg for the treatment of COVID-19

Topline results for the ZnAg COVID Phase 2 clinical trial in acutely symptomatic, non-hospitalized COVID-19 patients in Brazil are expected this quarter.

#### **Second Quarter 2022 Financial Results**

Clene's cash, cash equivalents and marketable investments securities totaled \$26.3 million as of June 30, 2022, compared to \$50.3 million as of December 31, 2021.

Research and development expenses were \$9.2 million for the quarter ended June 30, 2022, compared to \$6.5 million for the same period in 2021. The year-over-year increase is primarily attributable to the development of CNM-Au8 and CNM-ZnAg (including the rapid completion of the COVID study due to a viral wave leading to increased patient recruitment), rent expense for the newly-leased facility in Elkton, Maryland, and personnel expenses due to increased headcount as a result primarily of increased manufacturing hours, partially offset by decreased stock-based compensation expense.

General and administrative expenses were \$4.5 million for the quarter ended June 30, 2022, compared to \$6.9 million for the same period in 2021. The year-over-year decrease is primarily attributable to a decrease in directors' and officers' insurance costs, stock-based compensation expense and other general and administrative costs, including decreases in investor relations, accounting and consulting fees. These decreases were offset by increases in personnel compensation due to increased headcount as well as increases on other miscellaneous general and administrative expenses.

Clene reported a net loss of \$4.5 million, or \$0.07 per share, for the quarter ended June 30, 2022, compared to a net loss of \$3.4 million, or \$0.05 per share, for the same period in 2021. Included in net loss for the quarter ended June 30, 2022, is an unrealized gain from the change in fair value of contingent earn-out liabilities of \$9.4 million, compared to an unrealized gain of \$9.9 million in the prior year period.

#### About Clene

Clene is a clinical-stage biopharmaceutical company focused on revolutionizing the treatment of neurodegenerative disease by targeting energetic failure, an underlying cause of many neurological diseases. The company is based in Salt Lake City, Utah, with R&D and manufacturing operations in Maryland. For more information, please visit www.clene.com or follow us on Twitter, LinkedIn and Facebook.

#### About CNM-Au8®

CNM-Au8 is an oral suspension of gold nanocrystals developed to restore neuronal health and function by increasing energy production and utilization. The catalytically active nanocrystals of CNM-Au8 drive critical cellular energy producing reactions that

enable neuroprotection and remyelination by increasing neuronal and glial resilience to disease-relevant stressors. CNM-Au8® is a federally registered trademark of Clene Nanomedicine, Inc.

#### About CNM-ZnAg

CNM-ZnAg, a proprietary zinc-silver ionic solution, has demonstrated broad antiviral and antimicrobial activity.

#### Forward-Looking Statements

This press release 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," "believe," "contemplate," "continue," "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. These forward-looking statements represent our views as of the date of this press release 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 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 limited operating history and our ability to obtain additional funding for operations and to complete the development and commercialization of our drug candidates; 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 press release, 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 press release is as of the date of this press release. The information contained in any website referenced herein is not, and shall not be deemed to be, part of or incorporated into this press release.

#### **Media Contact**

Ignacio Guerrero-Ros, Ph.D., or David Schull Russo Partners, LLC Ignacio Guerrero-Ros@russopartnersllc.com David.schull@russopartnersllc.com 858-717-2310

Source: Clene Inc.

#### **Investor Contact**

Kevin Gardner LifeSci Advisors kgardner@lifesciadvisors.com 617-283-2856

## CLENE INC. CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME (LOSS) (In thousands, except share and per share amounts) (Unaudited)

	Three Months Ended June 30,			Six Months Ended June 30,				
		2022		2021		2022		2021
Revenue:								
Product revenue	\$	2	\$	138	\$	9	\$	337
Royalty revenue		33		63		56		77
Total revenue		35		201		65		414
Operating expenses:								
Cost of revenue		_		555		_		798
Research and development		9,166		6,472		17,746		12,747
General and administrative		4,464		6,949		9,250		12,339
Total operating expenses		13,630		13,976		26,996		25,884
Loss from operations		(13,595)		(13,775)		(26,931)		(25,470)
Other income (expense), net:								
Interest expense		(751)		(26)		(1,533)		(577)
Gain on extinguishment of notes payable		_		_		_		647
Gain on termination of lease		_		_		420		_
Change in fair value of common stock warrant liability		20		133		2		133
Change in fair value of Clene Nanomedicine contingent earn-out		8,310		8,640		8,253		(16,970)
Change in fair value of Initial Stockholders contingent earn-out		1,066		1,232		1,054		(1,729)
Australia research and development credit		356		375		655		714
Other income (expense), net		60		(2)		192		1
Total other income (expense), net		9,061		10,352		9,043		(17,781)
Net loss before income taxes		(4,534)		(3,423)		(17,888)		(43,251)
Income tax benefit		_		72		_		144
Net loss		(4,534)		(3,351)		(17,888)		(43,107)
Other comprehensive loss:								
Unrealized loss on available-for-sale securities		(37)		_		(87)		_
Foreign currency translation adjustments		(110)		(61)		(60)		(37)
Total other comprehensive loss		(147)		(61)		(147)		(37)
Comprehensive loss	\$	(4,681)	\$	(3,412)	\$	(18,035)	\$	(43,144)
Net loss per share basic and diluted	\$	(0.07)	\$	(0.05)	\$	(0.28)	\$	(0.71)
Weighted average common shares used to compute basic and diluted net loss per share		63,335,271		61,165,018		63,095,400		60,919,340

## CLENE INC. CONDENSED CONSOLIDATED BALANCE SHEETS

(In thousands, except share and per share amounts)

(Unaudited)				
		June 30,		December 31,
ASSETS		2022		2021
Current assets:				
Cash and cash equivalents	\$	7,253	\$	50,288
Marketable securities	Э	19,033	Ф	30,288
Accounts receivable		19,033		49
Inventory		107		49
Prepaid expenses and other current assets		5,194		4,205
Total current assets				
Restricted cash		31,587		54,583
		58		58
Right-of-use assets		4,808		3,250
Property and equipment, net	ф	8,089	_	5,172
TOTAL ASSETS	\$	44,542	\$	63,063
LIABILITIES AND STOCKHOLDERS' EQUITY				
Current liabilities:				
Accounts payable	\$	4,526	\$	1,923
Accrued liabilities		2,566		3,610
Operating lease obligations, current portion		440		347
Finance lease obligations, current portion		123		146
Total current liabilities		7,655		6,026
Operating lease obligations, net of current portion		5,858		4,370
Finance lease obligations, net of current portion		55		97
Notes payable		15,551		14,484
Convertible notes payable		4,709		4,598
Common stock warrant liability		167		474
Clene Nanomedicine contingent earn-out		9,847		18,100
Initial Stockholders contingent earn-out		1,263		2,317
TOTAL LIABILITIES		45,105		50,466
Commitments and contingencies				
Stockholders' equity (deficit):				
Common stock, \$0.0001 par value: 150,000,000 shares authorized; 63,421,908 and 62,312,097 shares issued and outstanding at June 30, 2022 and December 31, 2021, respectively		6		6
Additional paid-in capital		180,534		175,659
Accumulated deficit		(181,189)		(163,301)
Accumulated other comprehensive income		86		233
TOTAL STOCKHOLDERS' EQUITY (DEFICIT)		(563)		12,597
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$	44,542	\$	63,063

## 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," "believe," "contemplate," "continue," "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. 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 drugs; 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 the COVID-19 pandemic 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.



## CLENE | Entering a Transformative Period



Significant Opportunity

- Targeting neurodegenerative diseases such as ALS and Multiple Sclerosis
- >\$1B commercial opportunity in each indication



CNM-Au8® Emerging Clinical Results

- Long-term follow-up of RESCUE-ALS Phase 2 participants demonstrated statistically significant survival benefit; 70% decreased risk of death in ALS
- Positive Topline Results from the Phase 2 VISIONARY-MS Trial; CNM-Au8 demonstrated neurological improvements in stable relapsing MS as adjunctive therapy to immunomodulatory DMTs
- HEALEY ALS Platform Trial Phase 2/3 topline results expected in 3Q 2022



Proprietary Platform Strong IP

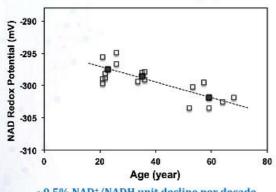
- Proprietary nanotherapeutic manufacturing, scalable to commercialization
- · Strong IP, including 150+ granted patents and manufacturing trade secrets



## Neurodegenerative Diseases Share A Common Mechanism: A Decline In The Brain's Ability To Produce Energy

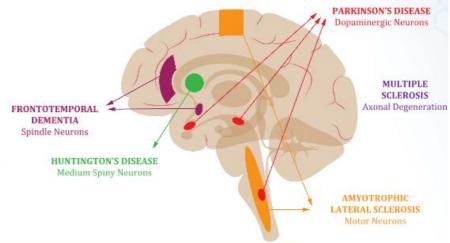
Brain Energy Potential Declines With Normal Aging





~0.5% NAD+/NADH unit decline per decade (~0.13 mV units per year by <sup>31</sup>P-MRS Imaging)

Closed squares = averaged data by age group: 21–26 yrs, 33–36 yrs, and 59–68 yrs old; Open squares = individual subject values

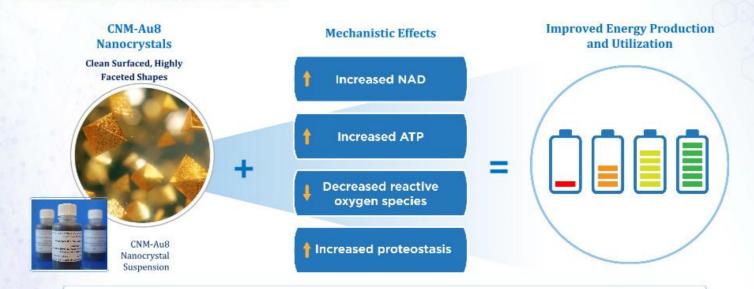


Energetic impairments in the CNS both pre-dispose and drive progression in neurodegenerative diseases



Fu, H., et al. Nature Neuroscience (2018) 21: 1350-1358, Zhu et al. Proc Natl Acad Sci USA 2015 Mar 3: 112[9]: 2876-81. Rone et al. J Neurosci. 2016 Apr 27:36[17]: 4698-707.

# CNM-Au8® | Pioneering A New Drug Class To Improve Cellular Energy Production And Utilization



By targeting energy metabolism, CNM-Au8 may protect and restore neuronal function.



Robinson et al. Sci Rep. 2020 Feb 11;10(1):1936. Data on File, Clene Nanomedicine, Inc.

## Preclinical Evidence of Remyelination and Neuroprotection

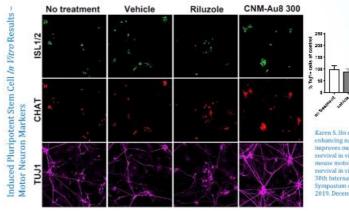
Demand Healthy North

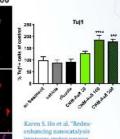
CNM-Au8 Supports Remyelination

CNM-Au8 Improves ALS Motor Neuron Function & Survival



on et al. Sci Rep. 2020 Feb 11;10(1):1936.





enhancing nanocatalysis improves motor neuron survival in vitro and SOD1 mease motor function and survival in vivo." Presented at 30th International Symposium on ALS/MND 2019, December 4-6, 2019.

CNM-Au8 novel MOA may be complementary to existing therapies to enable better disease control



# Significant Global Opportunity for Treatment in Combination with Standard of Care

## Motor Neuron Disease (ALS, Other Orphan Disorders)







## Multiple Sclerosis (MS)







## Parkinsons Disease (PD)







Urgent unmet need to develop neuroprotective treatment to support cells' energetic efficiency and resilience



## Building the Case for Neuroprotection & Remyelination











Established brain target engagement in early PD and stable relapsing MS patients

REPAIR-MS Phase 2 in nonactive progressive MS underway RESCUE-ALS trial supports CNM Au8 slowed disease progression in ALS

Demonstrated statistically significant survival benefit; 70% decreased risk of death

> HEALEY ALS Platform Trial topline results expected 30 2022

CNM-Au8 demonstrated neurological improvements in people with stable relapsing MS as adjunctive therapy to immunomodulatory DMTs

Results provide support to advance CNM-Au8 into Phase 3 clinical development

Growing Body of Evidence from Multiple Trials Supports CNM-Au8 Clinical Potential



# Over 350 Years of Subject Exposure Without Identified Safety Signals Across ALS, MS & PD

## Clean Toxicology Findings

All Animal Toxicology Studies Resulted in No-Adverse Effect Level (NOAEL) Findings

- Multiple species up to 9-months treatment
- Up to maximum feasible dosing without any toxicology findings related to CNM-Au8

## Well Tolerated Adverse Event (AE) Profile

Assessed as Predominantly Mild-to-Moderate Severity and Transient

- No SAEs related to CNM-Au8 considered severe, life-threatening, or resulting in death
- AEs predominantly mild-to-moderate

## Patient Exposure Across ALS, MS & PD

Over 350 Years of Subject Exposure Without Identified Safety Signals

 Long-term dosing experience up to 125 weeks



## Two REPAIR Trials Demonstrated Target Brain Engagement and Improved Energy Metabolism in Early Parkinson's and Stable Relapsing MS

Study Objective: to demonstrate target engagement for CNM-Au8 on CNS biomarkers related to energetic effects in the brain using Magnetic Resonance Spectroscopy (31P-MRS)

RepairPD Early Parkinson's Disease

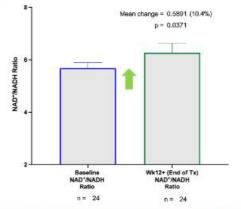
RepairMS Stable Relapsing MS

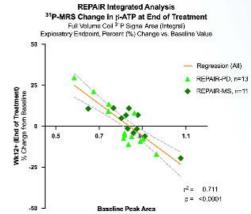
RepairMS Non-Active Progressive MS Results demonstrated a potentially meaningful 10% improvement in NAD+/NADH ratio, an essential molecule for energy production1

1° Endpoint (integrated PD & MS)<sup>2</sup>

Exploratory (ATP Normalization)

<sup>31</sup>P-MRS Change in Brain NAD\*/NADH Ratio at End of Treatment Partial Volume Col; Ratio of NAD\*/NADH (% Fraction of NAD\*) % Fraction NADH) Primary Endpoint, Mean ± SEM (Paired t-test)





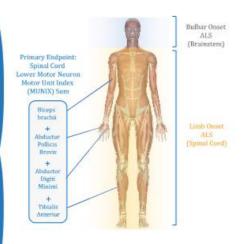
clene

## RESCUEALS Encouraging Efficacy Signals in Phase 2 Trial

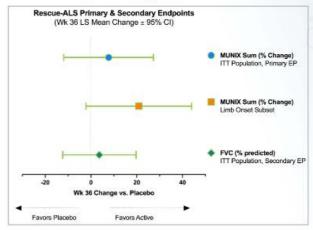
Study Objective: Detect preservation of motor neuron function in people with early ALS as measured by MUNIX

## Study Design:

36-week blinded treatment with ongoing long-term open-label follow-up



## 1° & 2° Endpoints



Results in favor of CNM-Au8 treatment but study underpowered

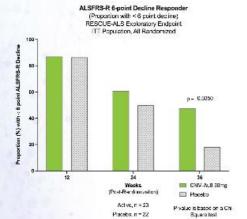




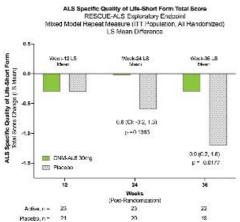
## RESCUEALS CNM-Au8 Improved Patient Function and QOL, and Slowed ALS Disease Progression

Across Multiple Pre-specified Exploratory Endpoints

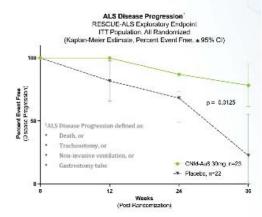




## ALS Specific QOL



## **ALS Disease Progression**





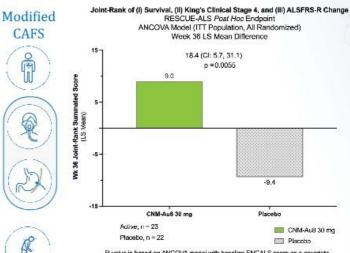
## RESCUEALS CAFS Results: Slowed Disease Progression

Ging's Clinical Stage 4

## **Exploratory Endpoint Pre-specified**

# CAFS Joint Rank: (i) Survival and (ii) ALSFRS-R Change RESCUE-ALS Exploratory Endpoint ANCOVA Model (ITT Population, All Randomized) Week 36 LS Mean Difference Survival 4.4 4.5 CNM-Au8 30 mg Placebo Active, n = 23 Placebo, n = 22 P-value is based on ANCOVA model with baseline ENCALS score as a covariate. Change in ALSFRS-R lotal score and date of death were combined to determine the CAFS score.

#### Exploratory Endpoint Post Hoc



P-value is based on ANCOVA model with baseline ENCALS score as a coveriste. Change in ALSFRS-R total score, date of non-invasive verilitation or gastrostomy, and date of death were combined to determine the joint-rank score.

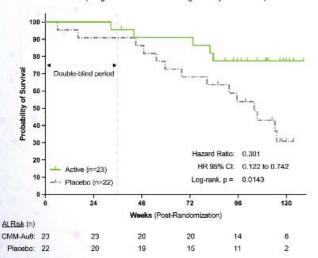




## RESCUEALS Demonstrated Significant Impact on Long-Term Survival with 70% Decreased Risk of Death

RESCUE-ALS Active vs. Placebo Randomization Long-Term Observed Survival (Interim Analysis)

Long-Term Survival: Originally Randomized Active vs. Placebo Interim Analysis (5-July-2022), ITT Population, All Subjects from Randomization (Long-term vital status including all study withdrawals)



Early CNM-Au8 treatment demonstrated a significant survival benefit:

- · Long-term follow-up compared to initial placebo randomization\*
- 70% decreased risk of death

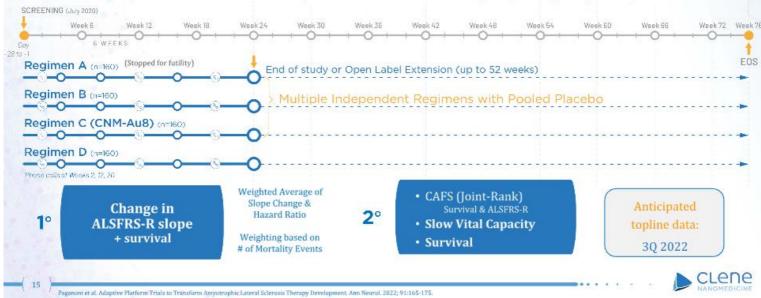


<sup>\*9-</sup>month delayed treatment start or no treatment



A Multi-center, Randomized Double-Blind, Placebo-Controlled Clinical Trial Assessing the Efficacy, Safety, Tolerability, Pharmacokinetics, and Pharmacodynamics of CNM-Au8 in Participants with Amyotrophic Lateral Sclerosis

Registration Study: 24-Week Treatment Period(3:1 randomization, 120 active [30mg, 60mg]: 40 placebo)



## **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
- n=73 of 150 planned study ended prematurely due to pandemic-related enrollment challenges





# Baseline Demographics Showed Balanced Randomization and Clinical Profile

- All participants were diagnosed with stable relapsing remitting MS with chronic optic neuropathy
- 92% treated with background DMTs (53% monoclonal antibodies, 32% oral)

Baseline Value mean (sd)	Age (yrs)	Sex n, (%) Female	Race n, (%) White	Weight (kg)	EDSS Score	Years from Dx	Months Since Relapse
CNM-Au8 15 mg	38.4	15	23	78.0	1.83	6.5	53
(n=24)	(10.2)	(63%)	(96%)	(17.1)	(1.3)	(5.0)	(57)
CNM-Au8 30 mg	39.6	16	24	78.6	1.50	3.4	37
(n=25)	(7.6)	(64%)	(96%)	(17.3)	(1.1)	(3.3)	(35)
Placebo	38.1	20	22	83.0	1.85	6.6	57
(n=24)	(8.3)	(83%)	(92%)	(23.3)	(1.4)	(3.7)	(38)
All Participants	38.7	51	69	79.9	1.75	5.5	49
(n=73)	(8.6)	(70%)	(95%)	(19.3)	(1.5)	(4.3)	(45)



## Pandemic Significantly Impacted Study Conduct

- Study was ended prematurely due to COVID enrollment challenges (as announced February 2022)
  - Enrolled 73 of 150 planned
  - Underpowered due to limited enrollment
  - Pre-specified statistical threshold set at p=0.10
  - COVID restrictions precluded direct Sponsor monitoring
- Objectives
  - Learn from results
  - Evaluate strength of evidence for further MS development



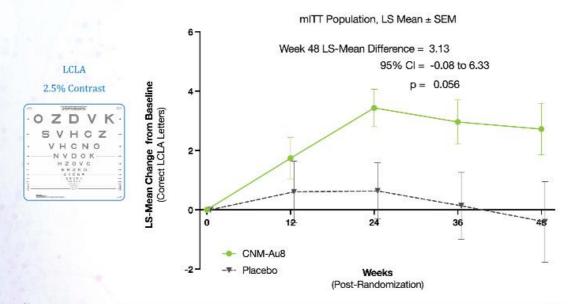
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- Censored observations included
  - Change in mobility assist device (cane to walker) for T25FW (n=1)
  - Invalid data from 1 of 11 sites (n=9) with LCLA testing execution errors
    - Multiple testing locations with different light boxes and varying ambient lighting conditions
    - In consultation with study Principal Investigator and external experts, all clinical data from the site were excluded



# CNM-Au8 treatment significantly improved vision Primary outcome - low contrast letter acuity (LCLA)

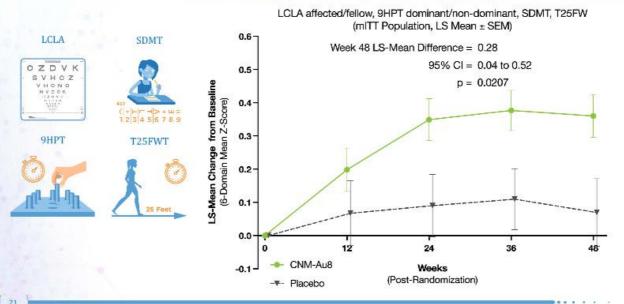
## LCLA in the Affected Eye





# CNM-Au8 demonstrated global neurological improvement by the modified MS functional composite

## Lead 2<sup>nd</sup> EP | (m)MFSC Composite Mean Standardized Change (6-domain)

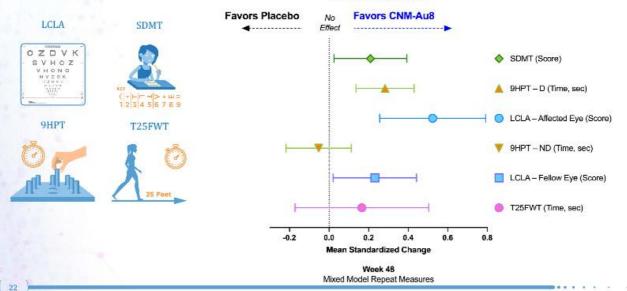




Data on File, Clene Nanomedicine, Inc. mITT excludes one site where data inconsistencies were observed in both active and placebo participants

## CNM-Au8 neurological improvement was driven by cognition, manual dexterity, and low contrast vision

Modified MS Functional Composite | Domain Improvements LCLA affected/fellow, 9HPT dominant/non-dominant, SDMT, T25FW (mITT Population, LS Mean Difference ± SEM) CNM-Au8 Less Placebo





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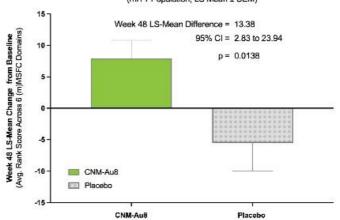
# CNM-Au8 treatment improved functional outcomes Improvement relative to placebo decline

## Score all subjects versus all other subjects by each mMSFC domain

If	Score
Better function than comparison	+1
Same function as comparison	0
Worse function than comparison	-1

## 2<sup>nd</sup> EP | mMFSC Averaged Rank Sum Score

mMSFC Average Rank Sum Score (6-domain)
LCLA (affected/fellow), 9HPT (dominant/non-dominant), SDMT, T25FW
(mITT Population, LS Mean ± SEM)



Week 48 Average Rank Score (ANCOVA)



## Safety Summary

- · CNM-Au8 treatment was safe and well-tolerated
  - Treatment emergent adverse events (TEAEs) were predominantly mild-tomoderate and transient
  - No dose limiting adverse events; no related serious adverse events

Treatment Emergent Adverse Events (TEAEs)	CNM-Au8 15 mg number (%)	CNM-Au8 30 mg number (%)	Placebo number (%)
Subjects with any TEAE	21 (88%)	25 (100%)	22 (92%)
Subjects with SAE	1 (4%)	2 (8%)	2 (8%)
Subjects with Related TEAEs	2 (8%)	5 (20%)	2 (8%)
Subjects Discontinued due to TEAE	-	1 (4%)	1 (4%)

Placebo SAEs: (1) Lentigo maligna melanoma, (2) pregnancy; CNM-Au8 15mg SAEs: (1) Pneumonia, bacteremia (staph aureus), endocarditis; CNM-Au8 30mg SAEs: (1) Ketamine infusion for pain and paracetamol overdose; (2) deep vein thrombosis (6-months post-discontinuation)



## **CNM-Au8 Efficacy Summary**

## Clinical and functional improvements

LCLA vision improvement

mMFSC globa neurological improvement

Independent quantitative biomarkers of myelin and axonal integrity

VEP amplitude & latency improvements

Structural MRI improvements

Preservation of retinal structure

First therapy to demonstrate global neurological improvement in MS patients on top of background DMT standard of care



## Strong IP & Manufacturing Capability

Extensive Patent Portfolio With Protection Through 2035 & Proprietary Trade Secrets; Plus 7-year Orphan Drug Designation, and Scalable to Commercialization

## Global Patent Status b

Issued & Allowed Patents 150+

Pending Applications ~20

Total Patents/ Applications >170

## **Patent Description**

Process And Method/Device (Gean Surface, Gold CSN)

State of Matter

Method of Use

Method of Use

## **Trade Secrets**

Plasma Conditioning

Electrode Design & Cycling

Trough Flow, Temp, Pressure

Concentration & Filtration

## In-House ISO8 Clean Room Clinical Production in Maryland







#### **Anticipated Timeline** & Upcoming Milestones 2021 2022 2023 2024 1H 2H 1H 2H 1H 2H **Amyotrophic** HEALEY ALS Platform Trial Phase 2/3 NDA SUBMISSION Lateral DATA Sclerosis (ALS) **Parkinsons** RESCUEPD Phase 2 Disease (PD) **◉VISIONARY-MS** Phase 2 ▶ DATA Multiple Sclerosis (MS) Repair MS DATA Anti-Viral ZnAgSTUDY ▶ DATA Anti-Microbial Cash and investments on hand (unaudited): Sufficient Cash to Hit Key Milestones in 2022

\$26.3M

clene

## CLENE | Growing Phase 2 Evidence Supports CNM-Au8 Commercial Potential





ALS Registration Trial Topline data in 3Q 2022<sup>2</sup>





Manufacturing expansion in progress, preparing for possible commercialization in 2023





ine 30, 2022 Cash and investments on hand (unaudited):

CLENE



Clene Inc.

HQ & Clinical Development 6550 South Millrock Drive, Suite G50 Salt Lake City, UT 84121

R&D and Manufacturing 500 Principio Parkway, Suite 400 North East, MD 21901

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# Clene Reports Positive Topline Results for CNM-Au8® in the Phase 2 VISIONARY-MS Trial in Multiple Sclerosis

- CNM-Au8 met primary and secondary endpoints of Low Contrast Letter Acuity (LCLA) and modified Multiple Sclerosis Functional Composite (mMSFC)
  compared to placebo over 48 weeks in the mITT population
- Consistent improvements favoring CNM-Au8 were seen across paraclinical biomarkers, providing physiological evidence for its potential neuroprotective and remyelinating effects
- CNM-Au8 treatment was well-tolerated, and there were no significant safety findings reported
- Results provide support to advance CNM-Au8 into Phase 3 clinical development
- Clene to host a call and webcast at 7:30 am EDT today

SALT LAKE CITY, August 15, 2022 -- Clene Inc. (Nasdaq: CLNN) (along with its subsidiaries, "Clene") and its wholly owned subsidiary Clene Nanomedicine Inc., a clinical-stage biopharmaceutical company focused on revolutionizing the treatment of neurodegenerative diseases, today announced positive topline results from the Phase 2 VISIONARY-MS trial of CNM-Au8®, an investigational gold nanocrystal suspension, in participants with stable relapsing remitting multiple sclerosis (RRMS).

VISIONARY-MS was a Phase 2 proof-of-concept, multicenter, randomized, double-blind, placebo-controlled trial evaluating the efficacy and safety of CNM-Au8 (15 mg or 30 mg daily) as adjunctive therapy to currently available disease-modifying therapies (DMTs) versus placebo over 48 weeks in stable RRMS participants with chronic optic neuropathy.

As announced in February 2022, the trial was stopped prematurely due to COVID-19 pandemic operational challenges, limiting enrollment to 73 out of the 150 planned participants. Due to the limited enrollment, the threshold for significance was pre-specified at p=0.10 prior to database lock. The primary analysis was conducted in a modified intent to treat (mITT) population, which censored invalid data. The mITT population excluded data from a single site (n=9) with LCLA testing execution errors and the timed 25-foot walk data from one subject with a change in mobility assist device. The ITT results were directionally consistent with the mITT results, although the ITT results were not significant.

"These data are very encouraging to us in the MS research and treatment community as we work to address functional improvement in patients," said Benjamin Greenberg, MD, MHS, FANA, FANA, CRND Professor of Neurology and one of the trial's clinical advisors. "The MS community has been successful at limiting relapses, but we need therapies to address progression independent of relapse activity (PIRA). This study was designed as a proof-of-concept evaluation to establish that treatment of neuronal and glial energetic failure can support remyelination and neuroprotection in people living with MS. I am pleased to see the potential effectiveness of CNM-Au8 demonstrated in this trial."

Primary and secondary results from Baseline to Week 48 were:

- Primary outcome: LCLA letter change in the clinically affected eye (least squares [LS] mean difference, 3.13; 95% CI: -0.08 to 6.33, p = 0.056)
- Secondary outcomes:
  - o mMSFC mean standardized change (LS mean difference, 0.28; 95% CI: 0.04 to 0.52, p = 0.0207)
  - o mMSFC average rank score (LS mean difference, 13.38; 95% CI: 2.83 to 23.94, p = 0.0138)
  - o Time to first repeated clinical improvement to Week 48 (45% vs. 29%, log-rank p=0.3991)

Consistent improvements favoring CNM-Au8 were observed across multiple paraclinical biomarkers, including multifocal visual evoked potentials (mfVEP) amplitude and latency, optical coherence tomography (OCT), and MRI endpoints, including magnetization transfer ratio and diffusion tensor imaging metrics. Placebo treated patients, in contrast, generally worsened as expected across these

measures during the 48-week period. These data provide independently assessed quantitative physiological evidence that supports the potential neuroprotective and remyelinating effects of CNM-Au8. The full dataset will be reported at an upcoming scientific congress.

CNM-Au8 was well-tolerated, and there were no significant safety findings reported.

Robert Glanzman, MD, FAAN, Clene's Chief Medical Officer, said, "In this study, CNM-Au8 demonstrated neurological improvements in people with stable relapsing MS as adjunctive therapy to immunomodulatory DMTs. I am very impressed by the consistency of structural and functional improvements demonstrated by CNM-Au8 throughout the neuraxis. With these data, Clene looks forward to initiating a Phase 3 clinical program in people with MS who are experiencing progression independent of relapse activity, the most urgent unmet medical need in MS today. We look forward to the next phase of clinical development."

Rob Etherington, Clene's Chief Executive Officer and President, added, "These results further demonstrate the potential of CNM-Au8 to drive neuronal cellular energy production in patients struggling with MS and other neurodegenerative diseases. We also await additional evidence of clinical efficacy from the HEALEY ALS Platform Trial, which is expected to report topline data later in this quarter. Clene will continue to work tirelessly to further CNM-Au8's development to treat neurodegenerative diseases."

### **Conference Call and Webcast Information**

Clene will host a conference call and webcast at 7:30 am EDT to discuss the VISIONARY-MS topline results.

Toll free: 1 (888) 770-7152 Conference ID: 5318408

Press \*1 to ask or withdraw a question, or \*0 for operator assistance.

To access the live webcast, please register online at this link. Participants are requested to register at a minimum 15 minutes before the start of the call. A replay of the call will be available two hours after the call and archived on the same web page for six months. A live audio webcast of the call will be available on the Investors section of the Company's website Presentation page. An archived webcast will be available on the Company's website approximately two hours after the event.

#### About VISIONARY-MS

VISIONARY-MS was a Phase 2 multi-center, randomized, double-blind, placebo-controlled trial to assess the efficacy and safety of CNM-Au8 in participants with stable relapsing remitting multiple sclerosis (RRMS) with a history of chronic visual impairment who are allowed disease-modifying therapy (DMT). Enrolled subjects were randomized 1:1:1 to CNM-Au8 15 mg/day, 30 mg/day, or placebo. As announced in February 2022, the trial was stopped prematurely due to COVID-19 pandemic operational challenges, enrolling 73 out of the 150 planned participants. Due to limited enrollment, the threshold for significance was pre-specified at p=0.10 prior to database lock. The primary endpoint was the change in best corrected-low contrast letter acuity (BC-LCLA) from baseline to week 48 in the clinically affected eye. Key secondary efficacy outcomes assessed neurological function by the modified MS Functional Composite (mMSFC) including 25-Foot Timed Walk, Symbol Digit Modalities Test, 9-Hole Peg Test (dominant and non-dominant hands), and LCLA (affected and fellow eye) from baseline through Week 48. For more information, see ClinicalTrials.gov. Identifier: NCT03536559. The open label extension of VISIONARY-MS is ongoing.

### About CNM-Au8®

CNM-Au8 is an oral suspension of gold nanocrystals developed to restore neuronal health and function by increasing energy production and utilization. The catalytically active nanocrystals of CNM-Au8 drive critical cellular energy producing reactions that enable neuroprotection and remyelination by increasing neuronal and glial resilience to disease-relevant stressors. CNM-Au8® is a federally registered trademark of Clene Nanomedicine, Inc.

#### **About Clene**

Clene is a clinical-stage biopharmaceutical company focused on revolutionizing the treatment of neurodegenerative disease by targeting energetic failure, an underlying cause of many neurological diseases. The company is based in Salt Lake City, Utah, with R&D and manufacturing operations in Maryland. For more information, please visit www.clene.com or follow us on Twitter, LinkedIn and Facebook.

#### Forward-Looking Statements

This press release 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," "believe," "contemplate," "continue," "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. These forward-looking statements represent our views as of the date of this press release 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 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 limited operating history and our ability to obtain additional funding for operations and to complete the development and commercialization of our drug candidates; 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 press release, 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 press release is as of the date of this press release. The information contained in any website referenced herein is not, and shall not be deemed to be, part of or incorporated into this press release.

#### **Media Contact**

Ignacio Guerrero-Ros, Ph.D., or David Schull Russo Partners, LLC Ignacio.guerrero-ros@russopartnersllc.com David.schull@russopartnersllc.com (858) 717-2310

Source: Clene Inc.

#### **Investor Contact**

Kevin Gardner LifeSci Advisors kgardner@lifesciadvisors.com 617-283-2856



### 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," "believe," "contemplate," "continue," "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. 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 drugs; 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 the COVID-19 pandemic 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.







**Phase 2 Results** 

Treatment of <u>Vis</u>ual Pathway Deficits <u>In Chronic Optic Neuropathy</u> for <u>Assessment of Remy</u>elination in Non-Active Relapsing <u>MS</u>



# **VISIONARY-MS** Core Design Elements

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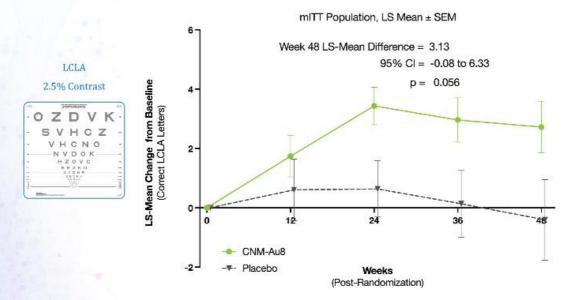
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# CNM-Au8 treatment significantly improved vision Primary outcome - low contrast letter acuity (LCLA)

### LCLA in the Affected Eye

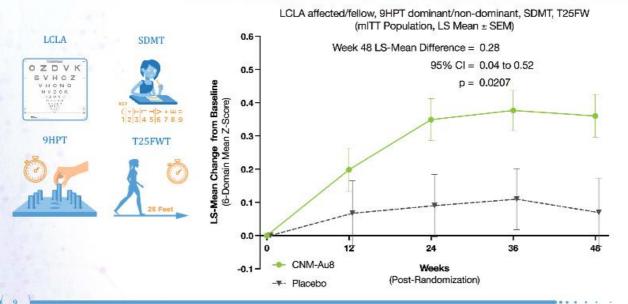




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# CNM-Au8 demonstrated global neurological improvement by the modified MS functional composite

### Lead 2<sup>nd</sup> EP | (m)MFSC Composite Mean Standardized Change (6-domain)

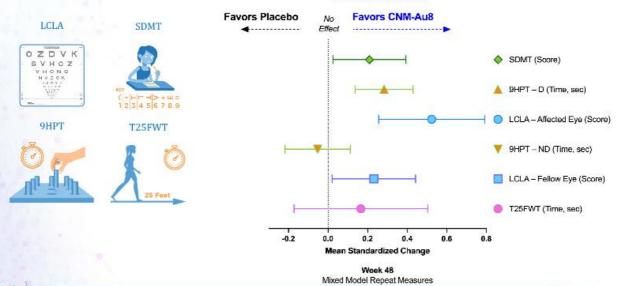




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### CNM-Au8 neurological improvement was driven by cognition, manual dexterity, and low contrast vision

Modified MS Functional Composite | Domain Improvements LCLA affected/fellow, 9HPT dominant/non-dominant, SDMT, T25FW (mITT Population, LS Mean Difference ± SEM) CNM-Au8 Less Placebo





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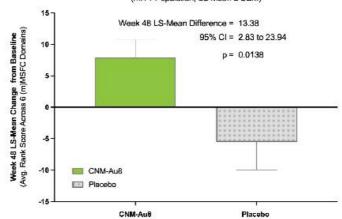
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### 2<sup>nd</sup> EP | mMFSC Averaged Rank Sum Score

mMSFC Average Rank Sum Score (6-domain)
LCLA (affected/fellow), 9HPT (dominant/non-dominant), SDMT, T25FW
(mITT Population, LS Mean ± SEM)

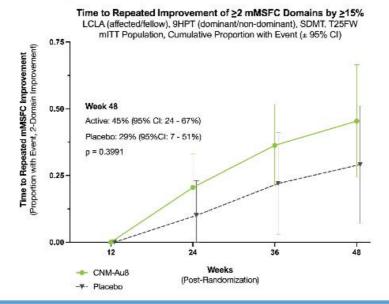


Week 48 Average Rank Score (ANCOVA)



# Time to repeated clinical improvement was not significant

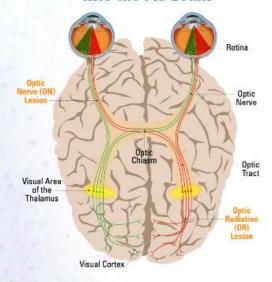
### 2<sup>nd</sup> EP | Time to Repeated Clinical Improvement (Last 2<sup>nd</sup> EP)





# Quantitative physiological biomarkers of Improved axonal and myelin integrity

The Visual System is a Window into the MS Brain



### 1. Visual Evoked Potentials (VEP)

- multifocal Amplitude
- multifocal Latency

### 2. Advanced MRI Techniques

- · Diffusion Tensor Imaging
- Magnetization Transfer Ratio

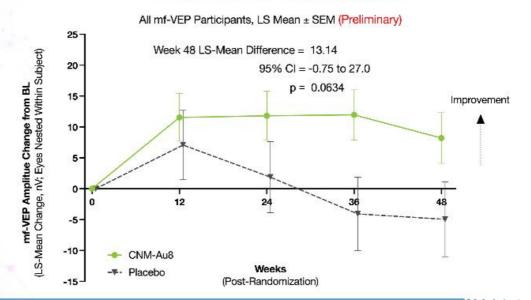
### 3. Optical Coherence Tomography

- · Retinal nerve fiber layer thickness
- Ganglion cell layer thickness



# CNM-Au8 improved visual information processing Multi-focal VEP amplitude – marker of axonal integrity

### Increased Amplitude (Signal Strength)

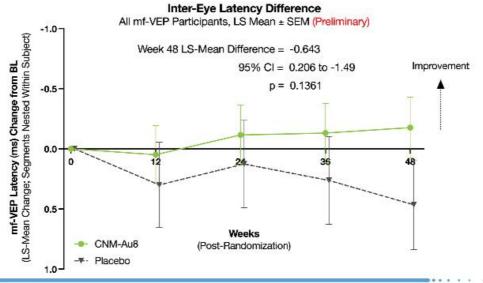




Data on File, Clene Nanomedicine, Inc.

# CNM-Au8 improved myelin integrity Multi-focal VEP latency – marker of remyelination

Increased Conduction Velocity (Signal Speed)
Supports Remyelination or Enhanced Functional Myelin Integrity

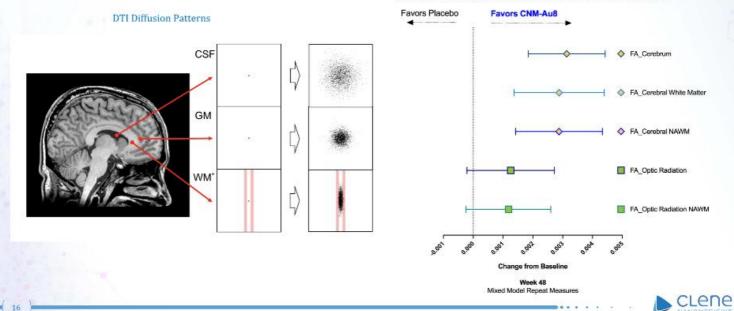




Data on File, Clene Nanomedicine, Inc

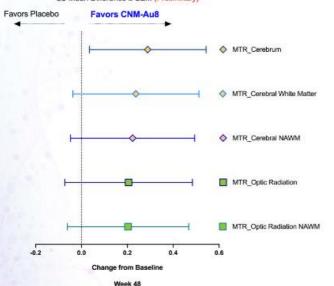
## CNM-Au8 improved axonal integrity Structural MRI marker of fractional anisotropy

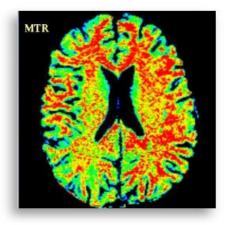
Diffusion Tensor Imaging | Fractional Anisotropy (FA) Change All Advanced MRI Imaging Participants, LS Mean Difference ± SEM (Preliminary)



# CNM-Au8 improved magnetization transfer ratio Increased myelin integrity throughout the brain

Magnetization Transfer Ratio (MTR) Change All Advanced MRI Imaging Participants LS Mean Difference ± SEM (Preliminary)





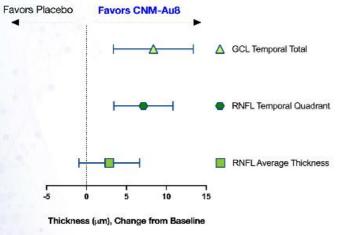


Data on File, Clene Nanomedicine, Inc

### CNM-Au8 preserved retinal structure Protection of retinal nerve fiber & ganglion cell layers

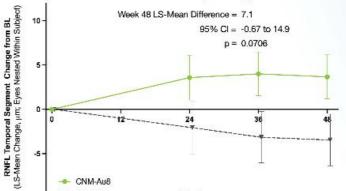
OCT | RNFL and GCL Temporal Segment Thickness (μm)
All Participants with OCT

LS Mean Difference ± SEM (Preliminary)



OCT | RNFL Temporal Quadrant Thickness (µm)

All Participants with OCT LS Mean ± SEM (Preliminary)



(Post-Randomization)

CNM-Au8

-▼- Placebo

-10-

Week 48 Mixed Model Repeat Measures



## Safety Summary

- · CNM-Au8 treatment was safe and well-tolerated
  - Treatment emergent adverse events (TEAEs) were predominantly mild-tomoderate and transient
  - No dose limiting adverse events; no related serious adverse events

Treatment Emergent Adverse Events (TEAEs)	CNM-Au8 15 mg number (%)	CNM-Au8 30 mg number (%)	Placebo number (%)
Subjects with any TEAE	21 (88%)	25 (100%)	22 (92%)
Subjects with SAE	1 (4%)	2 (8%)	2 (8%)
Subjects with Related TEAEs	2 (8%)	5 (20%)	2 (8%)
Subjects Discontinued due to TEAE	-	1 (4%)	1 (4%)

Placebo SAEs: (1) Lentigo maligna melanoma, (2) pregnancy; CNM-Au8 15mg SAEs: (1) Pneumonia, bacteremia (staph aureus), endocarditis; CNM-Au8 30mg SAEs: (1) Ketamine infusion for pain and paracetamol overdose; (2) deep vein thrombosis (6-months post-discontinuation)



### **CNM-Au8 Efficacy Summary**

### Clinical and functional improvements

LCLA vision improvement

mMFSC global neurological improvement

Independent quantitative biomarkers of myelin and axonal integrity

VEP amplitude & latency improvements

Structural MRI improvements

Preservation of retinal structure

First therapy to demonstrate global neurological improvement in MS patients on top of background DMT standard of care



- First proof of neuroprotective and remyelinating treatment for MS
- Multiple signals of clinical and biomarker improvement
  - ✓ Clinical neurological function
  - ✓ Axonal integrity and neuroprotection
  - ✓ Remyelination and myelin integrity
- Results support advancement into Phase 3 MS clinical development





Clene Nanomedicine, Inc. HQ & Clinical Development 6550 S. Millrock Drive, Suite G50 Salt Lake City, UT 84121

R&D and Manufacturing 500 Principio Parkway, Suite 400 North East, MD 21901

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