

Randomised, double-blind, placebo-
controlled study assessing efficacy and
safety of CNM-AU8 in amyotrophic
lateral sclerosis
RESCUE-ALS study

*Professor Steve Vucic
MBBS (Hons I), PhD, DSc, FRACP, FAHMS
Northcott Chair of Neurology
Brain and Nerve Research Centre
Concord Clinical School
University of Sydney*

Acknowledgements & Disclosures

- Funding support from FightMND Australia is gratefully acknowledged
- We thank all ALS patients and their carers for participating in RESCUE-ALS
- Steve Vucic is a company director that holds equity in Clene Inc.
- Presenting on behalf of trial investigators

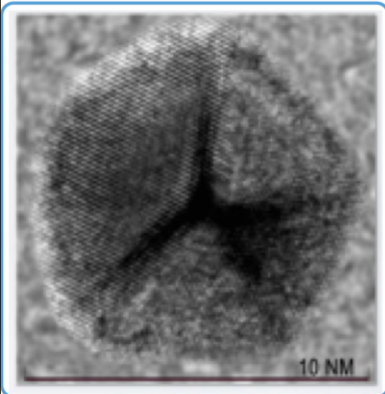
CNM-Au8: Catalytic active gold nanocrystals improves cellular energy production

CNM-Au8 nanocrystal

Enhances catalytic activity

Mechanisms of action

Increased energy production & utilisation



Electrons (e⁻) Move Freely Across Nanocrystal Surface

Vertices, Edges, & Faces Key to Catalytic Activity



Increased NAD



Increased ATP



Decreased reactive oxygen species



Increased proteostasis



Increased energetic potential



Improved resistance to oxidative, mitochondrial, and excitotoxic stressors



Reduction in levels of misfolded proteins



placebo-controlled study in early symptomatic amyotrophic lateral sclerosis

Neurophysiology
MUNIX

Function & QoL
ALSFRS-R, ALSSQOL-SF

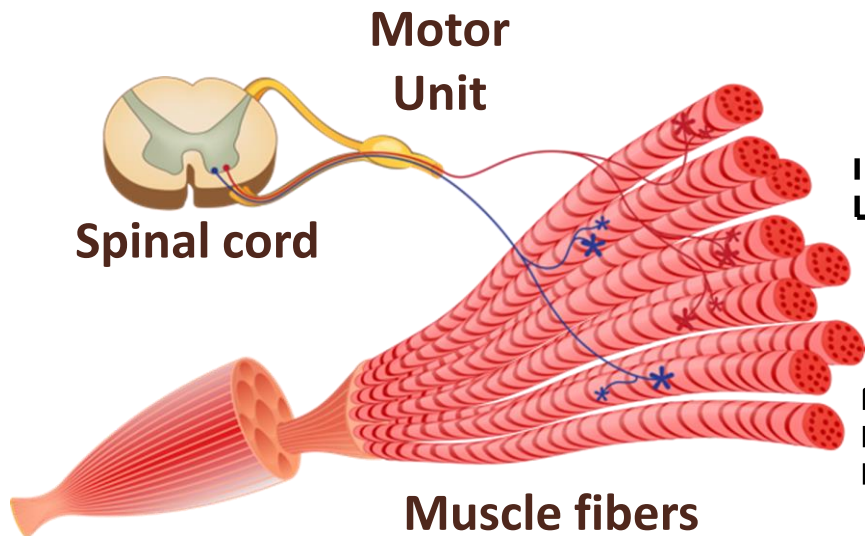
Disease Progression & Survival

Pulmonary Function
Forced Vital Capacity

Motor unit number index (MUNIX): Outcome biomarker

MUNIX

- *Novel application for estimating motor unit numbers*

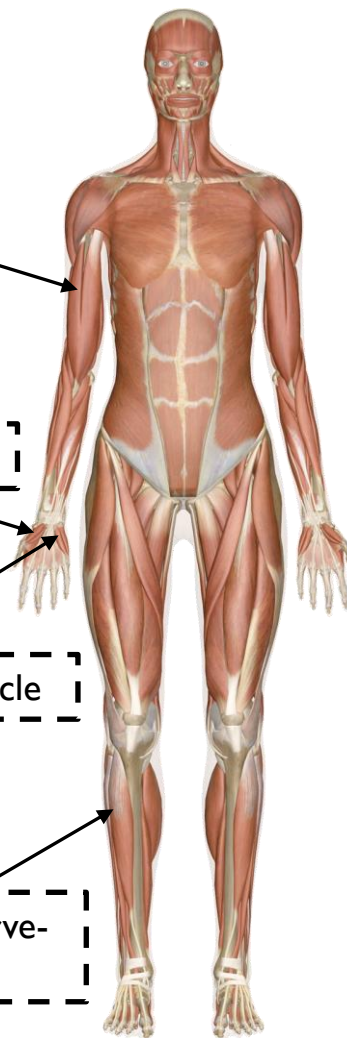


Musculocutaneous nerve-
Biceps brachii muscle

Median nerve- APB muscle

Ulnar nerve- ADM muscle

Common Peroneal nerve-
TA muscle

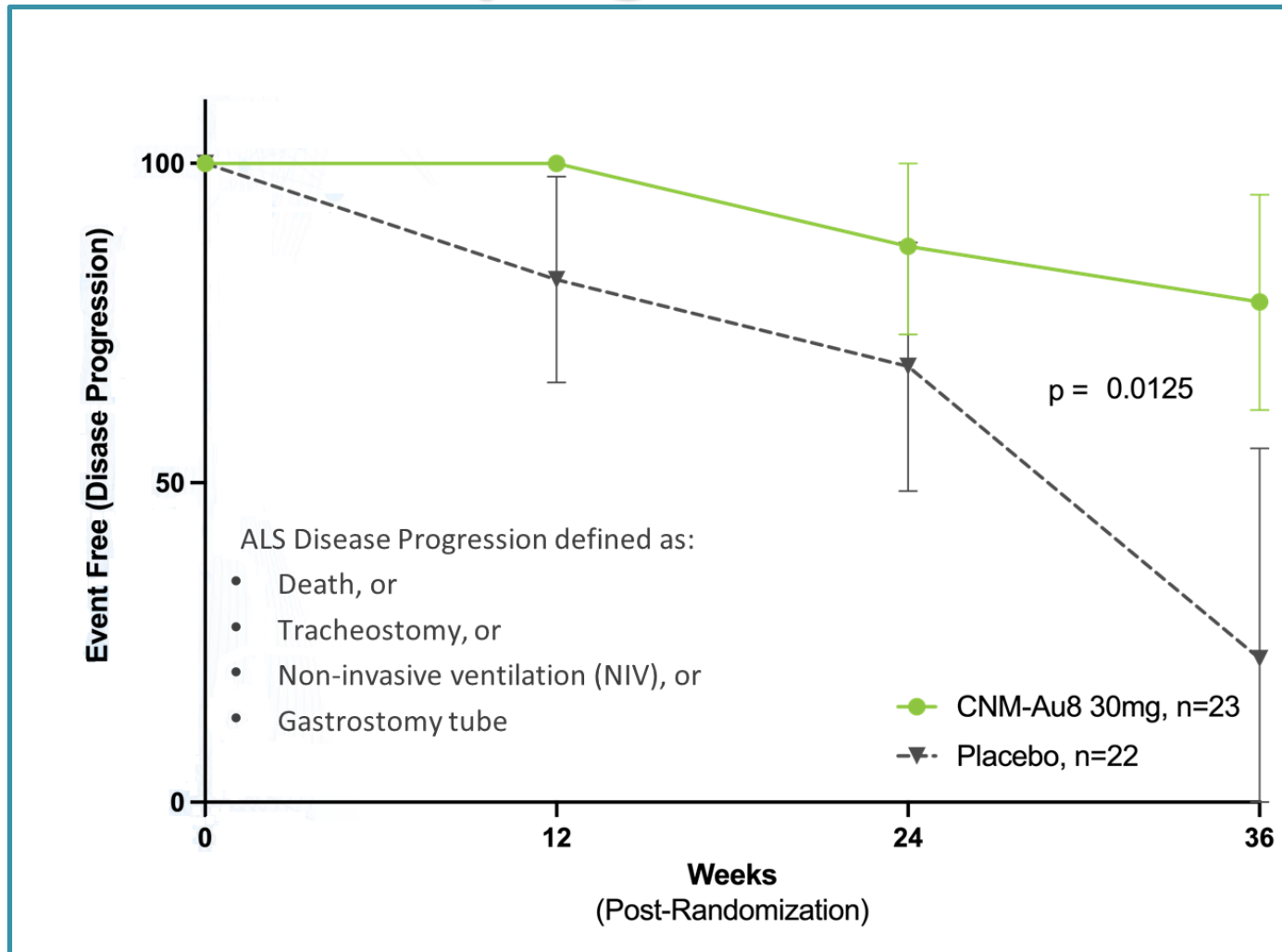


Baseline data

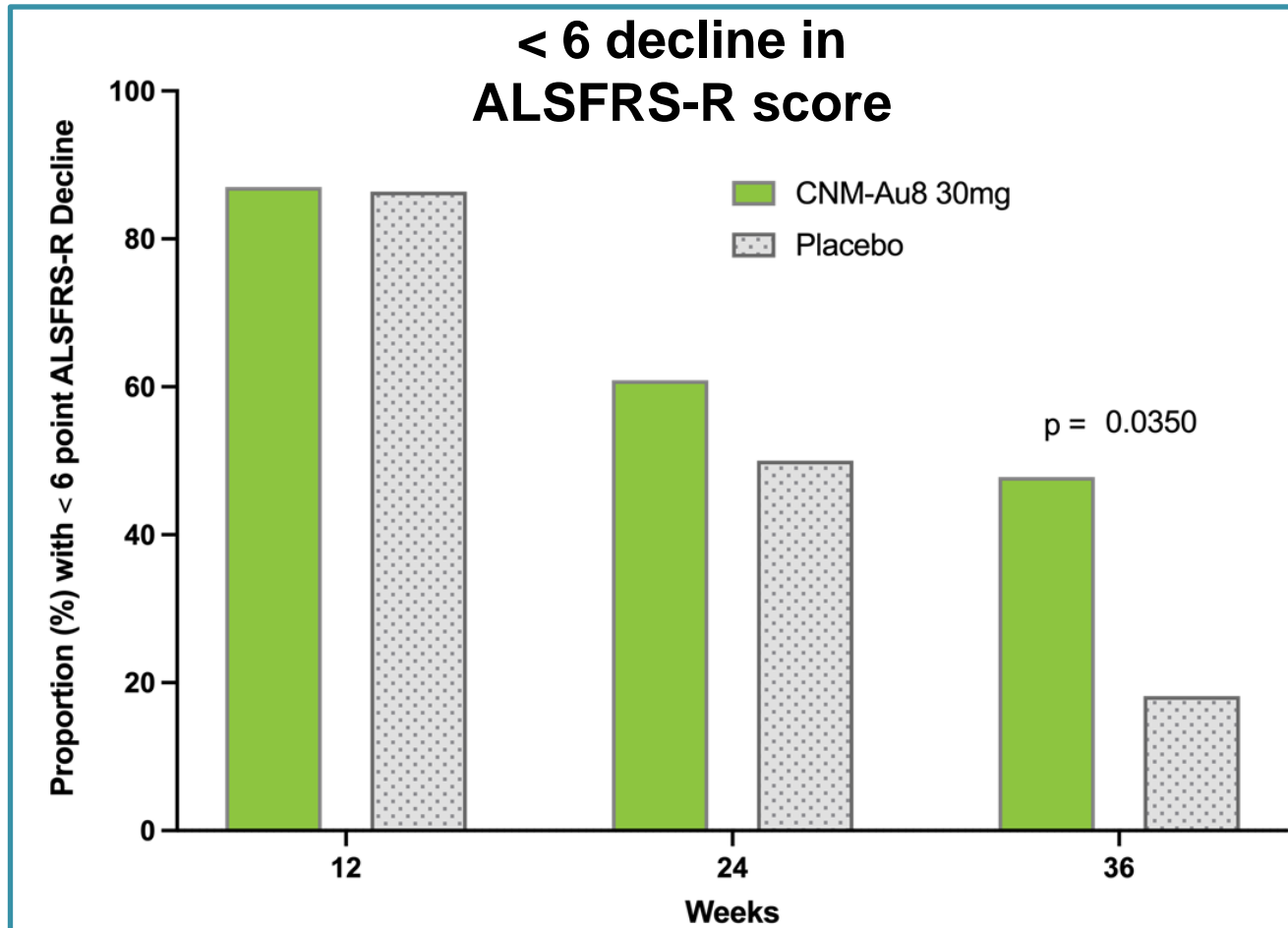
Baseline Value mean (sd)	Age (yrs)	Sex n, (%) Male Female	Onset Site n, (%) Limb Bulbar	Months from Onset	FVC (% pred.)	ALSFRS-R Score	ENCALS Risk Profile ¹	MUNIX Sum
All (n=45)	59.1 (12.3)	M: 26 (58%) F: 19 (42%)	L: 33 (73%) B: 12 (27%)	15.8 (9.3)	81.5 (16.7)	38.7 (6.0)	-4.4 (1.8)	378.2 (175.3)
CNM-Au8 30mg (n=23)	57.0 (13.3)	M: 13 (57%) F: 10 (43%)	L: 16 (70%) B: 7 (30%)	15.5 (7.6)	84.5 (18.3)	38.6 (6.6)	-4.6 (1.7)	380.2 (198.0)
Placebo (n=22)	61.3 (10.9)	M: 13 (59%) F: 9 (41%)	L: 17 (77%) B: 5 (23%)	16.1 (10.9)	78.2 (14.5)	38.8 (5.4)	-4.2 (1.8)	376.2 (152.7)

**89% of participants treated with riluzole
as background standard of care**

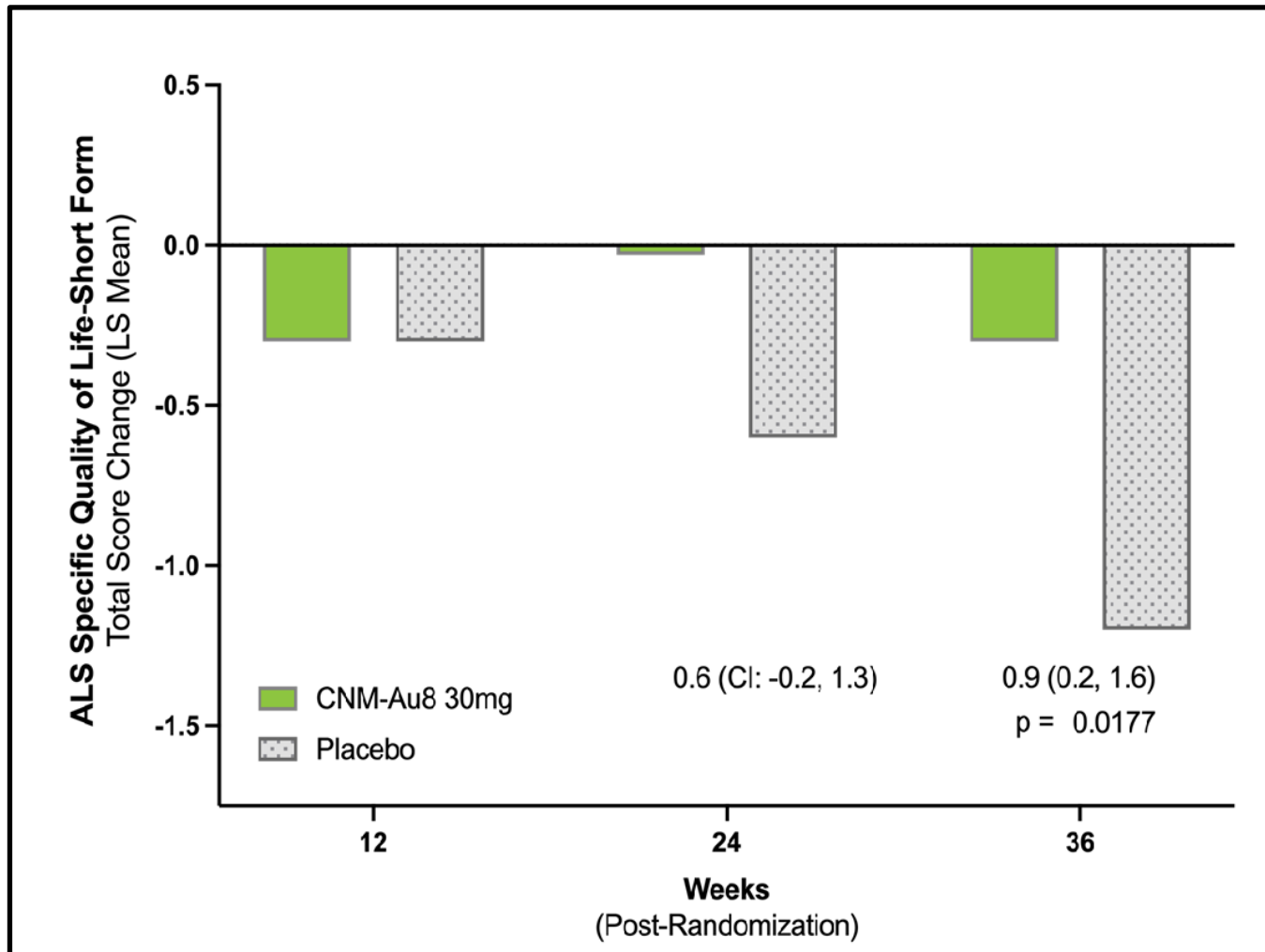
Significant slowing in disease progression



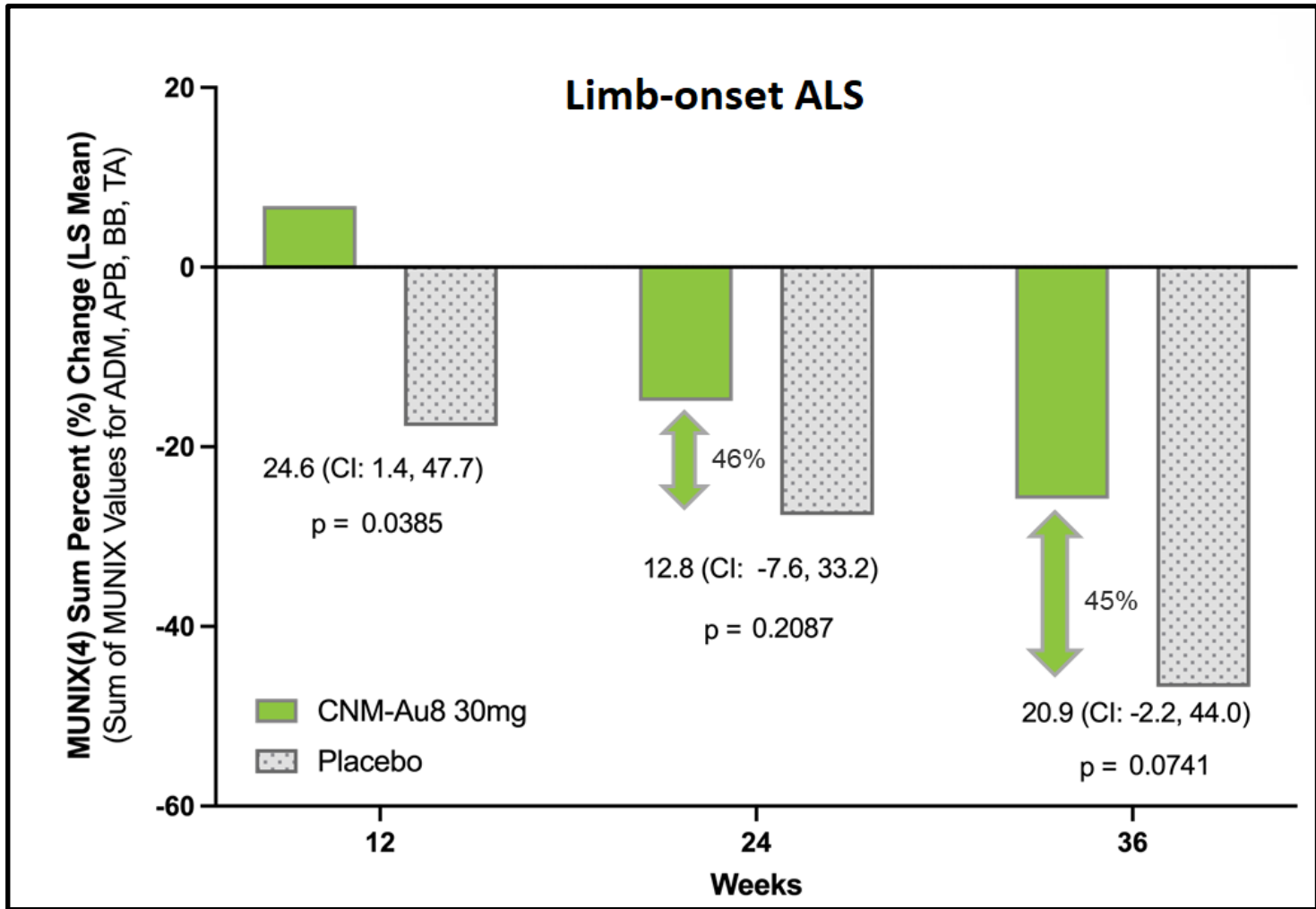
Significant reduction in functional decline



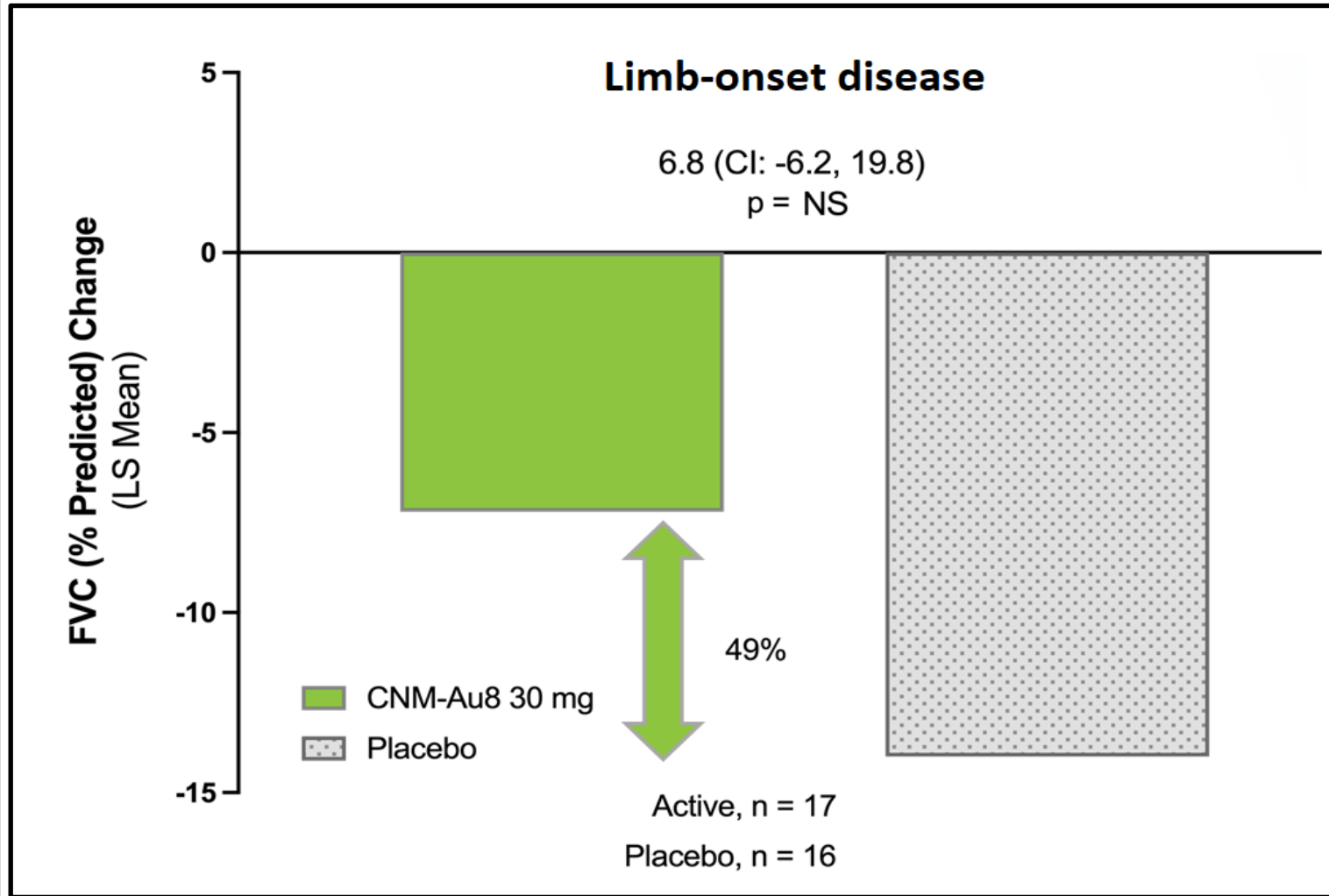
Significant improvement in quality of life



Trend for slower rate of decline in summated MUNIX score



Trend for preservation of respiratory function



CNM-Au8 in ALS

- **CNM-Au8: well-tolerated & safe**
- **Mild treatment emergent adverse events**
 - Aspiration pneumonia (n=3)
 - Nausea (n=2)
 - Abdominal discomfort (n=2)
- **There were no serious adverse events or drug discontinuations**

Conclusion

- **Evidence of CNM-Au8 therapeutic efficacy**
 - Significant slowing in disease progression
 - Improved survival
 - Significant reduction in functional decline
 - Significant improvement in quality of life
 - Trend for preservation of lower motor neurons and respiratory function
- **CNM-Au8, well tolerated and safe in ALS**
- **Larger clinical trials underway**

Acknowledgements

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