Thank you for joining the **Leap Day Special** webinar! We are admitting audience members from the waiting room. **Please allow a few moments for the webinar to begin.**



HEALEY ALS Platform Trial

Weekly Q&A – February 29, 2024







Healey & AMG Center

Sean M. Healey & AMG Center for ALS at Massachusetts General Hospital























































The last leap day was February 29, 2020. As we reflect on progress over the last four years, we are immensely grateful to trial participants and everyone in the ALS community who has supported research in many different ways.

Progress in ALS research and advances in clinical care options would not be possible without your partnership



ALS Therapy Options Are Expanding

Disease Modifying Medications - 4 approved drugs in the US

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*Riluzole (1995)
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- *Radicava (edaravone; 2017-IV; May 2022-oral)
- *Relyvrio (PB and TURSO; September 2022)
- *Tofersen, SOD1 (April 2023)- first ALS approval under the accelerated approval pathway

Medications and supportive care to treat symptoms



Early diagnosis and access to care are paramount

Short-Term and Long-Term Goals:

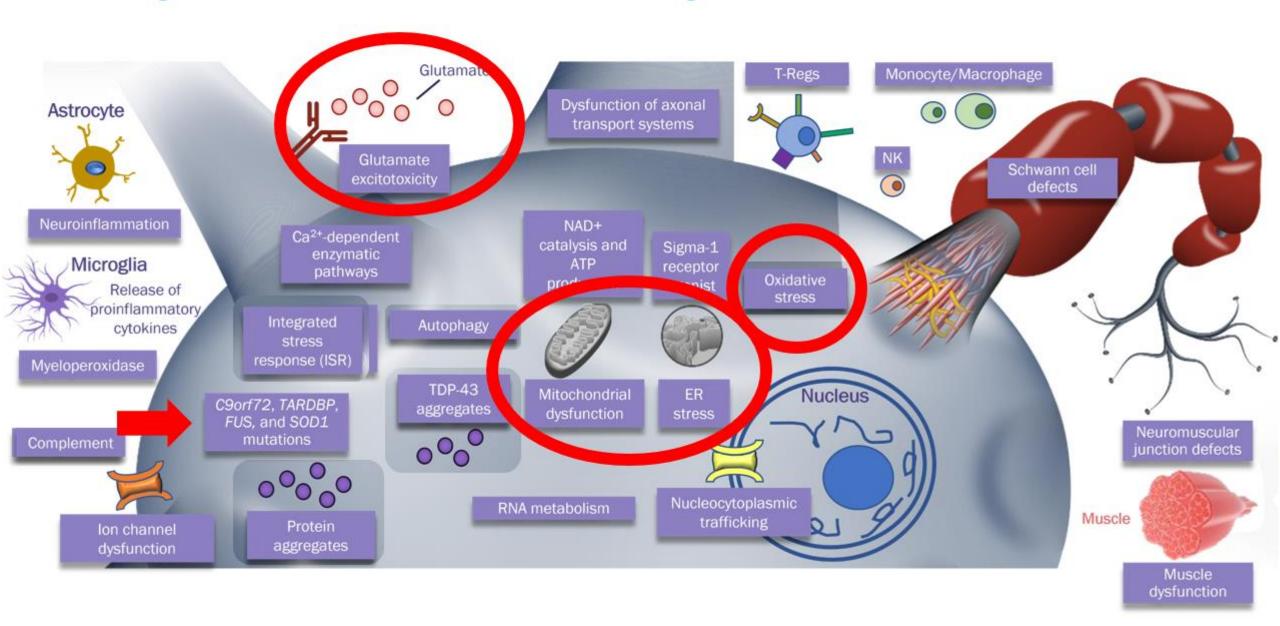
- Slow/Stop ALS
 - Likely to require a cocktail of products
 - Targeted drugs, if applicable

- Prevent ALS
 - Gene carriers

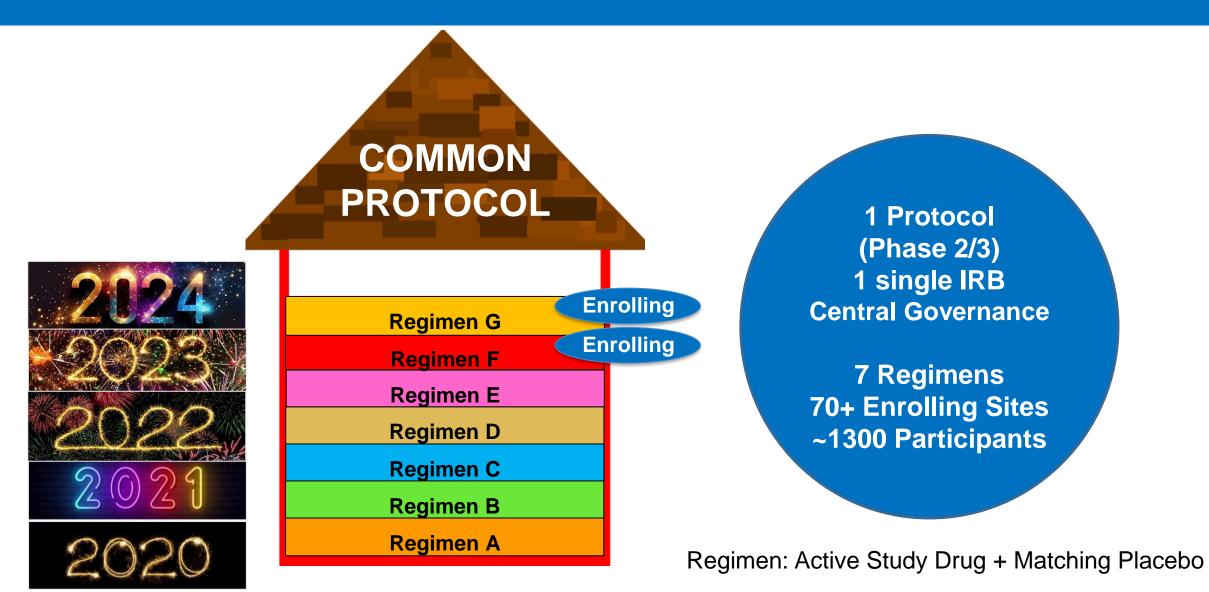
Reverse ALS

- > 250 companies in ALS space
- Active clinical trial networks
- Engaged patient population
- Engaged, collaborative foundations

Multiple mechanisms are implicated in ALS



Common protocol and shared infrastructure allow for operational and scientific efficiencies









Glutamate











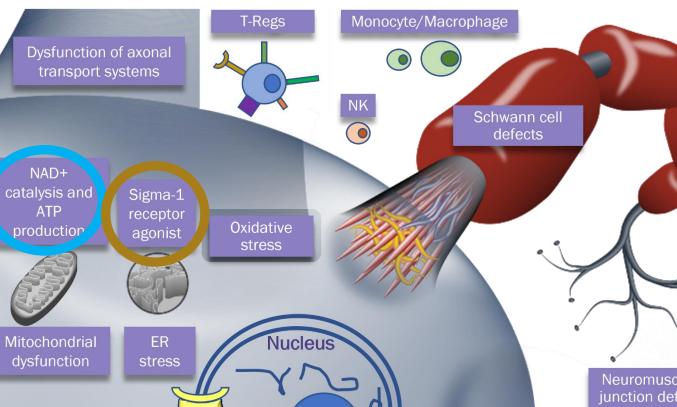
excitotoxicity

Ca2+-dependent

enzymatic

pathways





Astrocyte Neuroinflammation Microglia Release of

proinflammatory cytokines

Myeloperoxidase



Ion channel dysfunction

Integrated stress response (ISR)

C9orf72, TARDBP, FUS, and SOD1 mutations



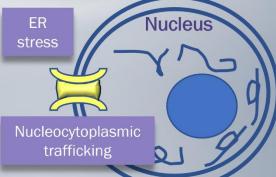
Protein aggregates

TDP-43 aggregates

Autophagy



RNA metabolism



Neuromuscular junction defects



Muscle dysfunction

Platform trials are a unique opportunity to advance science



DNA – whole genome sequencing



Neurofilaments -for all regimens



Biomarkers (Blood, Urine, CSF) – several drug-specific biomarkers



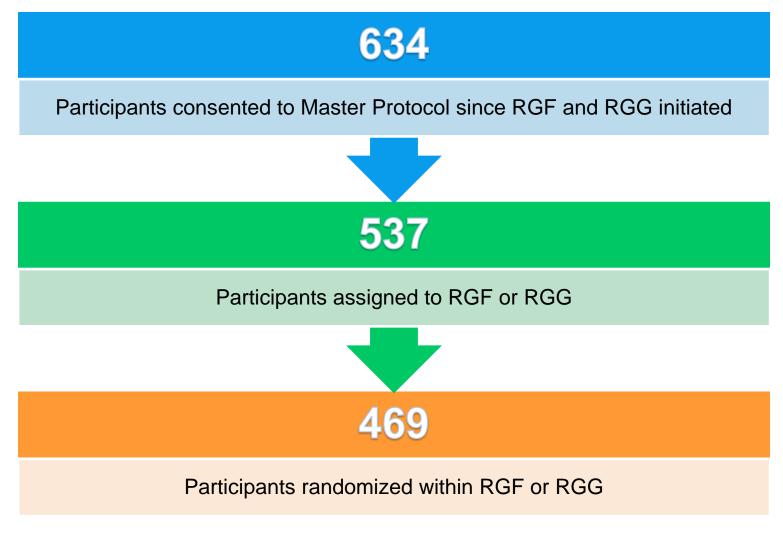
Speech Analysis – emerging digital biomarker



Home Spirometry – critical during the pandemic

Additional biomarkers/outcome measures for upcoming regimens (new patient-reported outcomes; PBMCs for stem cell generation)

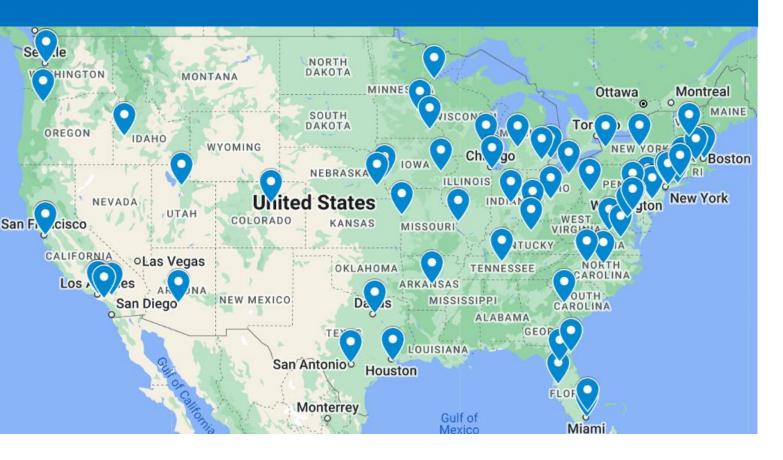
Enrollment Update: Regimen F and Regimen G



Thank You

for your partnership in ALS research

Providing research access across a diverse network of 70+ NEALS sites





Contact a study team near you to discuss enrollment opportunities



https://bit.ly/3g2NZr5

Sharing our experience

Meetings with disease-specific networks both in the US and globally



Disease Areas

- 1. ALS
- Alzheimer Disease
- 3. Duchenne Muscular Dystrophy
- 4. FSHD
- 5. Myotonic Dystrophy
- 6. Frontotemporal Dementia
- Parkinson Disease
- 8. Progressive Supranuclear Palsy (PSP)

- Traumatic Brain Injury
- Spinal Cord Injury
- 11. Vanishing White Matter Disease
- 12. Depression
- 13. Neurofibromatosis (NF)
- 14. Scleroderma
- 15. Idiopathic Pulmonary Fibrosis
- 16. Fibrodysplasia Ossificans Progressiva (FOP)
- Vascular Malformations

New Regimen Application Form:



Master Protocol, Publications, and Other Documents Available at:

https://www.massgeneral.org/neurology/als/research/research-partners

E-mail:

Merit Cudkowicz:

mcudkowicz@mgh.harvard.edu

Sabrina Paganoni:

spaganoni@mgh.harvard.edu

Sharing our experience

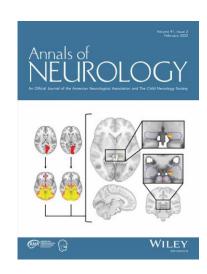
Research publications available via open access

Adaptive Platform Trials to Transform Amyotrophic Lateral Sclerosis Therapy Development

First published: 21 December 2021

Open Access





Design and Statistical Innovations in a Platform Trial for Amyotrophic Lateral Sclerosis

First published: 28 May 2023

Open Access





https://onlinelibrary.wiley.com/doi/10.1002/ana.26285

https://onlinelibrary.wiley.com/doi/10.1002/ana.26714

Patient Navigation Central resource for people living with ALS



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Weekly webinar registration:



https://bit.ly/3r6Nd2L

ALS Link sign-up:



https://bit.ly/3o2Ds3m

Upcoming Webinars:

March 7th- Weekly Q&A

March 14th- EAP Discussion with Dr. Jinsy Andrews (Columbia University)

March 21st- Weekly Q&A