

AMYOTROPHIC LATERAL SCLEROSIS RESEARCH PROGRAM (ALSRP)



CDMRP

DEPARTMENT OF DEFENSE

CONGRESSIONALLY DIRECTED
MEDICAL RESEARCH PROGRAMS

FY23
Appropriation
\$40M

IMPROVE TREATMENTS AND FIND CURES FOR PEOPLE WITH ALS

MISSION: Fund impactful research to develop ALS treatments

Program Priorities



Preclinical Treatment Discovery



Preclinical Treatment Validation

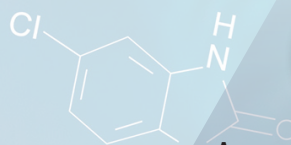


Clinical Biomarker Development



Early Phase Clinical Trials

Scope of the Problem



Average life expectancy
is **2-5 years** from
diagnosis



No known therapies to
effectively stop or slow
progression



ALS is always fatal

The overall objective of the ALSRP is to expedite the pathway from bench science to clinical trials for new therapeutic approaches aimed at controlling or curing ALS.

The ALSRP invests congressional appropriations in distinct stages along the therapeutic development pipeline through stepwise translational award mechanisms.

Like all programs within the CDMRP, the ALSRP funds eligible institutions across the globe. There is no requirement for U.S. citizenship to serve as a principal investigator.

The ALSRP funds industry partners and non-profit organizations, as well as more traditional academic research institutions.

Supporting Community Engagement



Inclusion of community engagement and collaboration is a new, required element for all ALSRP-funded clinical research in fiscal year 2023 and beyond. Community collaboration is characterized by equitable partnership between the researcher and community members and representatives. This can be accomplished by a variety of different ways, and the ALSRP encourages all investigators to consider collaboration with the communities they serve.

For more information, visit: cdmrp.health.mil/alsrp





ALSRP Mechanisms Build a Therapeutic Pipeline



Therapeutic Idea Award (TIA)

- Supports highly innovative, hypothesis-driven preclinical therapeutic development in ALS.
- Proof-of-concept drug discovery.
- Preliminary data are not required.

Therapeutic Development Award (TDA)

- Investigational New Drug (IND)-enabling.
- Preliminary data are required, including therapeutic efficacy in at least one ALS-relevant model system.

Pilot Clinical Trial Award (PCTA)

- Early phase intervention trials, must include biomarker data.
- Preliminary data are required.
- Inform and de-risk more advanced future trials for the treatment or management of ALS.

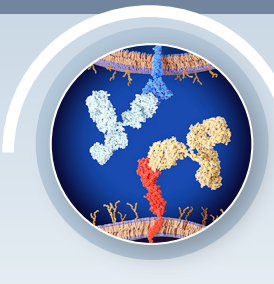
Pilot Clinical Trial Award – Clinical Care Tier (PCTA-CCT)

- Improve current aspects of ALS clinical care.
- May include improvements to assistive technologies, symptom management strategies, and telemedicine approaches; cannot include investigation of a novel therapeutic.

Clinical Biomarker Development Award (CBDA)

- Development and improvement of clinical biomarkers to enrich clinical trials.
- Biomarker analysis can be therapeutic- or ALS subtype-specific, does not have to broadly apply to all patients.

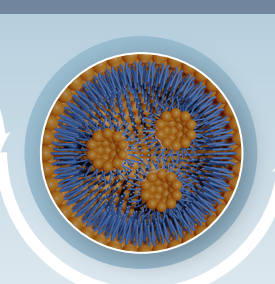
FY22 Funded Projects



Targeting ALS-FUS Aggregation with Proteasome Inhibitors

Dr. Reut Shalgi
Technion Research and Development Foundation Ltd.

This TIA examines the effects of proteasome inhibitors on FUS aggregation amelioration; the team will test if inhibition of the proteasome leads to activation of a specific proteotoxic stress response that is protective against FUS aggregation.



CHMP7 ASO Therapy: Repair of Nuclear Pore and TDP43 Dysfunction in Sporadic and Familial ALS

Dr. Jeffrey Rothstein
Johns Hopkins University

This TDA aims to demonstrate that a specific antisense oligonucleotide (ASO) candidate can reliably and effectively lower CHMP7 protein and aberrant intranuclear accumulation which, if successful, will advance the CHMP7 ASO through the necessary steps to prepare for a clinical trial in sporadic patients.



A Brain-Computer Interface for Voice Synthesis in People with ALS

Dr. Sergey Stavisky
University of California, Davis

This PCTA will develop and test an implanted intracortical brain-computer interface that translates the speech motor cortex activity of a person with ALS trying to speak into instantaneous synthesized voice output.



Combined Respiratory Training to Improve Pulmonary and Cough Function in Persons with ALS

Dr. Laura Tabor Gray
Nova Southeastern University

This PCTA-CCT will evaluate the impact of a combined lung volume recruitment and expiratory muscle strength training exercise regimen on cough and respiratory function in pALS.



RP-115: A Novel Biomarker of Astrocyte Dysfunction and Glutamate Dysregulation in Brain and Spinal Cord in ALS

Dr. Michael O'Sullivan
University of Queensland

This CBDA will establish PET ligand RP-115 as a clinical trial-ready tracer for use in rapid evaluation of new ALS therapies. The team believes RP-115 will identify changes centered on astrocyte biology, delineate disease subtypes for therapeutic development, and provide quantitative indices of ALS progression.