



Introduction to Research

Benjamin Greenberg, M.D., M.H.S.
Director, Neurosciences Translational Research Center
UT Southwestern
Dallas, Texas

The Research Process

At its core, research is about asking and answering questions.

Why do we do research?

Proving cause and effect is important for understanding diseases and identifying effective treatments

What happens without research?

- Therapies that are not effective are used
 - Bloodletting
- Therapies that are dangerous are used
 - Cocaine
- Therapies that are not effective AND dangerous are used
 - Mercury

Research saves us from ourselves: The minocycline story in ALS

- Minocycline is safe molecule currently used as an antibiotic
- ALS is a uniformly fatal, neurodegenerative condition.
- In cell culture models and animal studies, minocycline helped with neuronal survival.
- ***So for a terminal condition, why wouldn't we put every ALS patient on this safe, approved, medicine????***

Research saves us from ourselves: The minocycline story in ALS

- ALSFRS-R score deterioration was faster in the minocycline group than in the placebo group (-1.30 vs -1.04 units/month, 95% CI for difference -0.44 to -0.08; $p=0.005$). Patients on minocycline also had non-significant tendencies towards faster decline in FVC (-3.48 vs -3.01, -1.03 to 0.11; $p=0.11$) and MMT score (-0.30 vs -0.26, -0.08 to 0.01; $p=0.11$), and greater mortality during the 9-month treatment phase (hazard ratio=1.32, 95% CI 0.83 to 2.10; $p=0.23$) than did patients on placebo.

How do we do research?

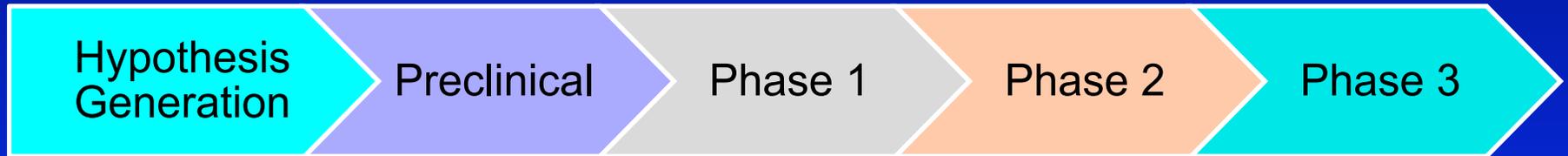
Retrospective

Epidemiologic

Observational

Interventional

How do we do research?



Opportunities to Assist in Research

- Registries
- Surveys
- Samples
- Prospective observational
- Open label interventional
- Randomized active comparator
- Randomized placebo controlled

The SRNA and Research

[About](#) [Become a Member](#) [Update Your Information](#) [Contact Us](#) [SRNA Blog](#) [f](#) [@](#) [v](#) [in](#)

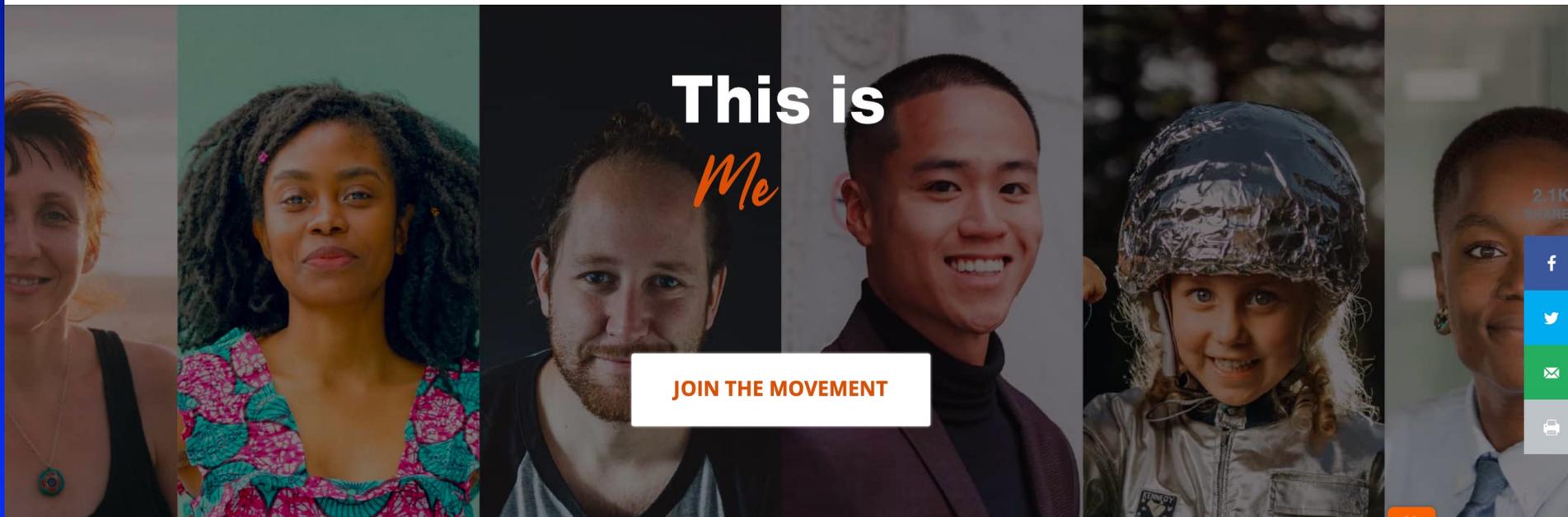


Siegel
Rare Neuroimmune
Association

[Newly Diagnosed](#) [Disease Information](#) [Programs & Services](#) [Research](#) [Events](#) [Get Involved](#) [Donate](#)

This is
Me

JOIN THE MOVEMENT



UT Southwestern

UT Southwestern
Medical Center

studyFINDER

Clinical Trials Home

Search for a Study

For Researchers

Contact Us



Search Study Opportunities

Healthy Volunteers ⓘ

Please Select ▾

Gender

Find the Right Clinical Trial. For You. For a Loved One.

Participating in research is one of the most powerful things you can do to be part of tomorrow's health care breakthroughs. UT Southwestern is always looking for people who are willing to participate in studies so that our researchers can better

<https://clinicaltrials.utswmed.org>

National Listings

NIH U.S. National Library of Medicine

ClinicalTrials.gov

Find Studies ▾

About Studies ▾

Submit Studies ▾

Resources ▾

About Site ▾

[PRS Login](#)

ClinicalTrials.gov is a database of privately and publicly funded clinical studies conducted around the world.

Explore **391,704** research studies in
all **50** states and in **219** countries.

See [listed clinical studies](#) related to the
coronavirus disease (COVID-19)

ClinicalTrials.gov is a resource provided by the
U.S. National Library of Medicine.

IMPORTANT: Listing a study does not mean it
has been evaluated by the U.S. Federal
Government. Read our [disclaimer](#) for details.

Before participating in a study, talk to your health

Find a study (all fields optional)

Status ⓘ

- Recruiting and not yet recruiting studies
- All studies

Condition or disease ⓘ (For example: breast cancer)

X

Other terms ⓘ (For example: NCT number, drug name, investigator name)

X

Clinicaltrials.gov