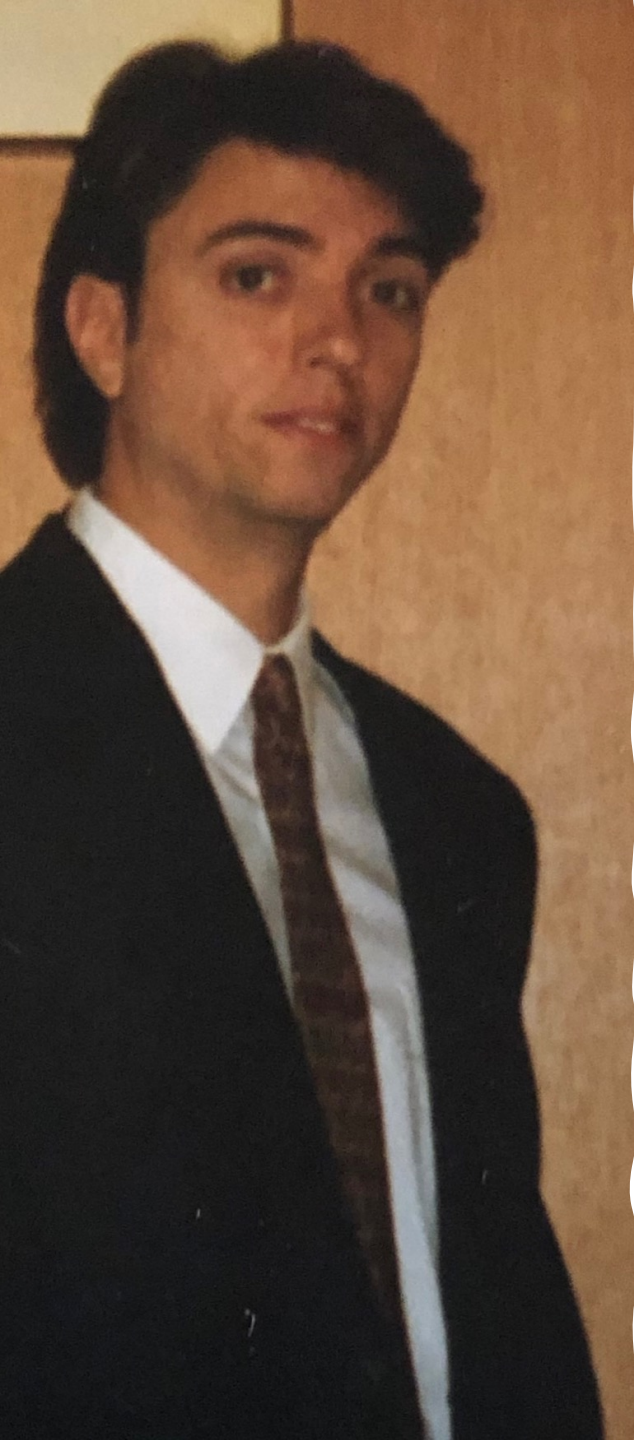




# Why We Need CRLIs: Advancing Options for ALS Through Patient Partnerships

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Richard S. Bedlack MD PhD  
Professor of Neurology  
Director of ALS Program  
Duke University



# 1990s-Duke Neurology Residency

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- My first encounter with ALS
  - Amazed by the person's story, physical findings
  - Horrified when my attending said "we know what this is called, but we don't know why it happens and there is nothing we can do about it. Go home and get your affairs in order"
  - Decided to stay at Duke and build a new clinic to offer options, research program to offer hope





## 2001 to Present-Growing Duke ALS Clinic

- Large Multi-Disciplinary Team
  - 2 ALS neurologists, 2 speech therapists, 2 physical therapists, 2 occupational therapists, 2 respiratory therapists, 1 pulmonologist, 1 nutritionist, 1 rehab engineer, 1 social worker/coordinator, 1 research nurse
- Research
  - Genetics, biomarkers, trials
- Lots of patients
  - 250 new patients last year, following 500 patients
- Unique attire, approach

# Low Enrollment in ALS Research



**On average, <10% of PALS in a given clinic will ever enroll**



**Mean ALS trial enrollment rate is 2 patients per site per month**

*ALS 2008;5:257-265*



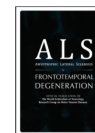
**Not changing much over time**

# Why This Matters

- Poor enrollment means:
  - Patients are being deprived of the benefits of being in trials
  - Trials take longer, are more expensive, may be terminated without a definitive conclusion
    - *Clinical Trials 2010;7:312-321*
  - Results may not be generalizable
    - *Neurology 2011;77:1432*
  - Unless this can be solved, it will take longer than it should to find a cure for ALS

# Understanding Low Enrollment

- Not enough options
- Patients disconnected
  - Unaware of or have misconceptions about research options
  - Don't appreciate pre-clinical models, small effect sizes we are looking for, restrictive inclusion criteria, use of placebos, trial travel burdens, or the long time it takes to get results
  - Many “self-experimenting” with alternative and off label treatments (AOTs) and frustrated that doctors not more interested in these
  - Patient quotes



Amyotrophic Lateral Sclerosis



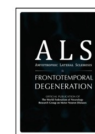
ISSN: 1748-2968 (Print) 1471-180X (Online) Journal homepage: <https://www.tandfonline.com/loi/iafd19>

## Scrutinizing enrollment in ALS clinical trials: Room for improvement?

Richard S. Bedlack, Daniel Pastula, Emily Welsh, Darlene Pulley & Merit E. Cudkowicz

To cite this article: Richard S. Bedlack, Daniel Pastula, Emily Welsh, Darlene Pulley & Merit E. Cudkowicz (2008) Scrutinizing enrollment in ALS clinical trials: Room for improvement?, Amyotrophic Lateral Sclerosis, 9:5, 257-265, DOI: 10.1080/17482960802195913

To link to this article: <https://doi.org/10.1080/17482960802195913>



Amyotrophic Lateral Sclerosis



ISSN: 1748-2968 (Print) 1471-180X (Online) Journal homepage: <https://www.tandfonline.com/loi/iafd19>

## Modifiable barriers to enrollment in American ALS research studies

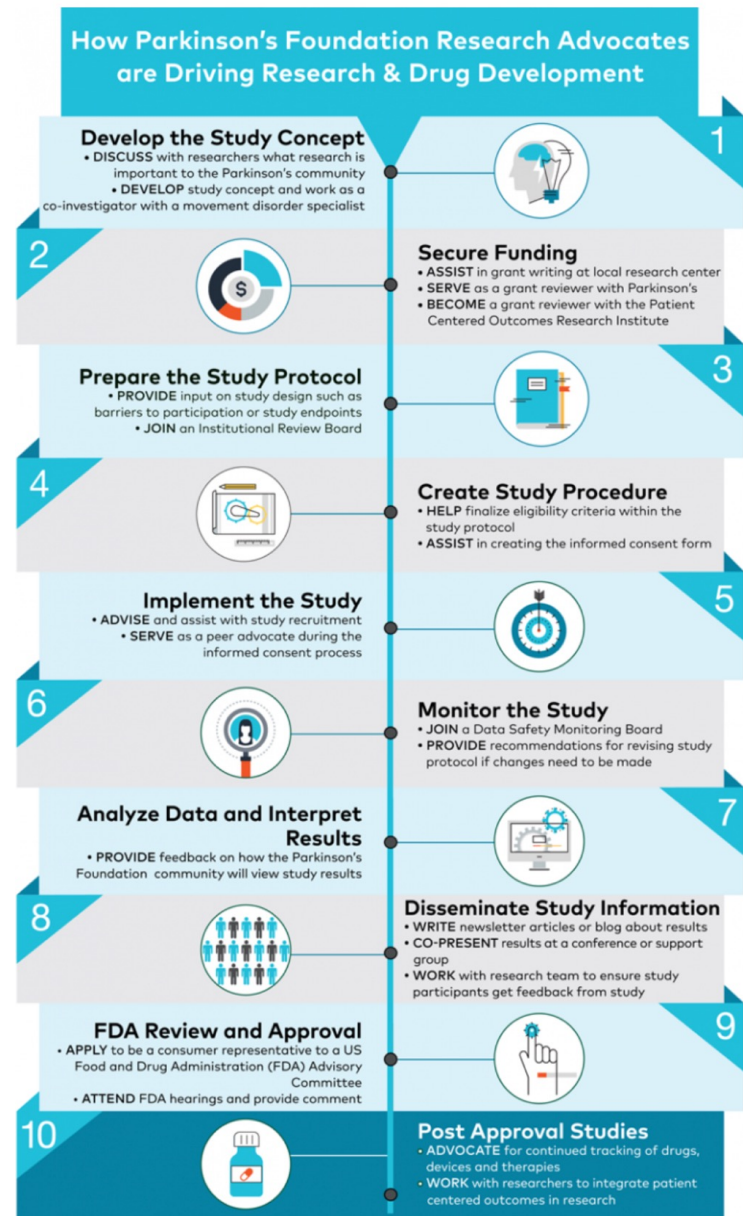
Richard S. Bedlack, Paul Wicks, James Heywood & Edward Kasarskis

To cite this article: Richard S. Bedlack, Paul Wicks, James Heywood & Edward Kasarskis (2010) Modifiable barriers to enrollment in American ALS research studies, Amyotrophic Lateral Sclerosis, 11:6, 502-507, DOI: 10.3109/17482968.2010.484494

To link to this article: <https://doi.org/10.3109/17482968.2010.484494>

# Clinical Research Learning Institutes (CRLIs)

- Looked at other fields to see how they were dealing with these same issues
- Heard about and attended a program in Parkinson's disease called Clinical Research Learning Institute, trains patients, family members to better understand research process, opportunities to influence and improve it
- Found ways to engage patients throughout the research process
- This was leading to more studies, improved awareness, studies with better questions, more-patient centric designs, easier consent forms, improved enrollment







# ALS CRLIs

- We have held 23 CRLIs thus far
  - Clearwater 2011-2019, 2022
  - Internet 2013, 2020, 2021
  - Philadelphia 2013, 2014, 2019-2022
  - Sacramento 2017
  - Phoenix 2018
  - St. Louis 2018
  - Chicago 2021
  - Canada 2021
- We have trained more than 550 "ALS Research Ambassadors"



# PEACe (Patient Education and Advocacy Committee)

- Chairs: Allison Bulat, Nadia Sethi
- Members: All research ambassadors, NEALS clinicians
- Monthly video conferences connecting Research Ambassadors to different stakeholders in ALS research
  - PAGs
  - Sponsors of upcoming, future studies
  - Individual researchers

# Ambassadors In Action- Fundraising to Increase Availability

- Played key roles in raising hundreds of millions for research
- Ex. 2 of them started the 2014 ALS Ice Bucket Challenge (\$200M)



*Amyotrophic Lateral Sclerosis and Frontotemporal Degeneration*, 2014; 15: 479–480

# Ambassadors In Action- Advocating to Increase Research Availability

- Thousands of interactions with members of Congress
  - Helped obtain and maintain funding for National ALS Registry
  - Helped obtain and grow funding for DOD's ALSRP
  - Facilitated Act For ALS in 2021
    - \$500 million in new funds for ALS Research and Expanded Access!



Your comments have been received.

## Speaking at the Cherry Hill, NJ Support Group

Posted by: Kathy Delaney Thomas August 26, 2014



### Overview

- Why isn't there a cure for ALS?
- What is clinical research?
- Common questions about trials
- Should I participate in research?
- How can I get involved?

Last month, Karen Delaney Shideff and I gave our ALS Clinical Research presentation to the Cherry Hill, NJ support group. We were grateful to be given the opportunity to share information about ALS clinical research with PALS and encourage them to evaluate whether participating in research is right for them.

We both find it very rewarding to be able to educate PALS about this important topic and are particularly inspired when we receive feedback like this:

[Two weeks after our presentation] "Another gentleman came in [to clinic] all-systems-go for some studies he'd been ambivalent to join."

To leave a comment, please [click here](#).

## PALS, Advocates and NEALS Research Ambassadors Storm the Hill

Posted by: Karen DiGiacomo June 03, 2014



Recently, PALS, advocates and our very own NEALS Research Ambassadors descended on Capitol Hill to educate our Senators and Representatives on this devastating disease called ALS. One by one telling the most personal, emotional, heartbreaking stories to policymakers in the hopes that we will one day fund the means to a cure.







# Ambassadors In Action- Improving Study Designs

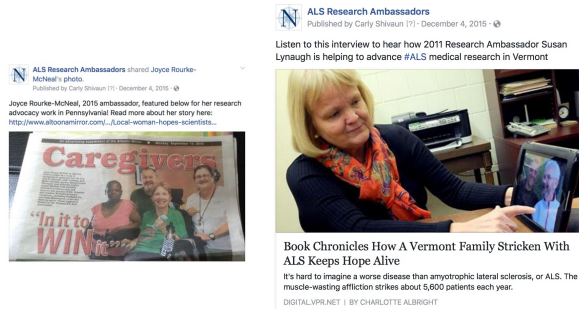
- Interacting with ALS researchers to design more attractive, patient-friendly studies
  - Reviewers for TREAT ALS, DOD ALSRP grant submissions
  - Connecting with funded investigators (ex. Anne Marie Willis, Rick Bedlack)
  - Connecting with Sponsors

## PATIENT ADVISORY BOARDS

- MT Pharma
- Biogen
- Cytokinetics
- Avexis
- Patients Like Me
- ALS Untangled
- CReATe Consortium
- HEALEY ALS Platform Trial
- ALS Association
- Patients Like Me
- Corcept Therapeutics
- OSU Medical Center
- AI Therapeutics
- AI Therapeutics
- Alector
- Cytokinetics
- Clinwiki
- (Picnic Health)
- NURO Corp
- (Annexon)
- (Medicinova)

# Ambassadors In Action- Spreading Awareness

- 1000 speeches at at support groups and fundraisers
- 700 interviews, blogs, website posts
- Advising us on better ways to advertise open trials
  - NEALS Trial Search Engine
  - ALS Signal
  - NEALS Trial Concierge
  - National ALS Registry
  - Research Notification Tool



I am starting to see evidence that our efforts work. For the first time our clinic is getting requests about clinical trials from patients. I have been speaking to support groups around our state and it seems to have piqued their interest! I am working with our clinic to make myself available on clinic days to provide information and guidance With the clinical trial process.

# Ambassadors In Action- Education

- Support group talks, webinars, Facebook posts, chat room responses, mentoring for other PALS, CALS educating them on research terminology, importance of certain trial design features, common research misconceptions
- Teaching in the CRLI

The screenshot shows a Facebook page for "ALS Research Ambassadors" (@ALSResearchAmbassadors). The page header includes navigation options: Page, Messages, Notifications, Insights, Publishing Tools, Settings, and Help. The profile picture is a blue compass rose with the letters "N" and "A". The bio reads "ALS Research Ambassadors @ALSResearchAmbassadors". A left-hand menu lists: Home, About, Photos, Events, Likes, Videos, Posts, and Manage Tabs, with a "Promote" button at the bottom.

The main content is a post from "ALS Research Ambassadors" published by Carly Shivaun on August 8. The post text says: "Join Mary Luper, 2015 ALS Research Ambassador, on November 14th at 3:00 PM EST for a live webinar: Opportunities and Tips for Raising ALS Awareness & Advocacy! Register here: <https://attendee.gotowebinar.com/regist.../7206331526240796418>". Below the text is a photo of Mary Luper, a woman with glasses and a black top, smiling. The post title is "PALS Webinar: Opportunities and Tips for Raising ALS Awareness & Advocacy". The description continues: "The November 14th ALS Association/Northeast ALS Consortium PALS webinar will feature Mary Luper, a PALS who will be sharing her experiences with ALS...". The URL "ATTENDEE.GOTOWEBINAR.COM" is listed below the description. The post has "324 people reached" and a "Boost Post" button.

On the right side of the page, there are several promotional cards: "Learn More" (blue button), "Easily Manage Your Page From Anywhere" (Get the Pages Manager app), and "How to Create Effective Posts" (Short, visual posts created for the right audience are more successful). Below these is a "PHOTOS" section with a grid of images, including a group of people holding red balloons, a person on a beach, and a Vanderbilt University logo.

# Ambassadors In Action- Educating on Active, Recently Completed Projects

- CReATe Consortium Podcasts
- ALS Research Paper Review
- Your ALS Guide

Home About CReATe For Patients And Friends For Researchers News Contact Us RDCRN

CREATE PODCASTS FOR PATIENTS AND FRIENDS > CREATE PODCASTS

The CReATe podcasts are short recorded interviews on topics we hope will be of interest to patients with ALS and other motor neuron diseases.

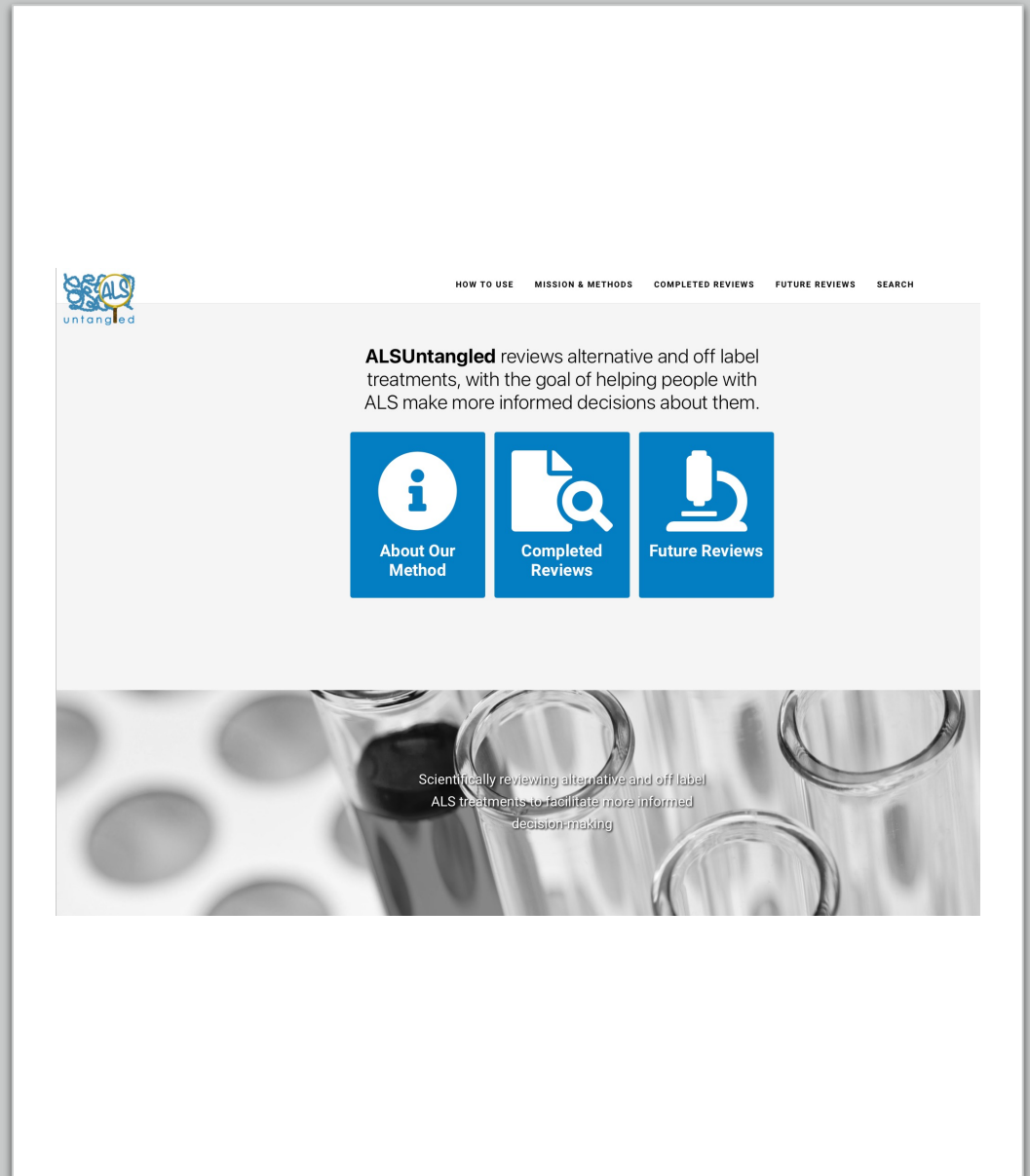
Search for a podcast

Episode Title	Podcast Description	Podcast	Date Published
ALS Untangled Series: Ep. 44 - Tamoxifen	Tamoxifen is an FDA approved estrogen receptor modulator that is currently prescribed to treat breast cancer. Here we review surprising evidence that it could someday be an ALS treatment, including its mechanisms of action, pre-clinical data, cases, trials and risks. # als, caregiver, health, mnd, neurology, patient, science, supplement, tamoxifen, treatment	ALS Untangled...	2021-07-06 20:06:39
ALS Untangled Series: Ep. 43 - Spirulina (blue green algae)	Spirulina, or blue green algae, is a supplement that is claimed to have antioxidant and anti-inflammatory properties. Here we review the problems we found with the single relevant preclinical ALS study, and some surprising real and potential risks associated with this product. # algae, als, caregiver, health, mnd, neuroscience, patient, science, spirulina, supplement, treatment	ALS Untangled...	2021-06-08 15:00:25
ALS Untangled Series: Ep. 42 - Lutimax	Lutimax is a supplement containing Luteolin, a flavonoid that has antioxidant, anti-inflammatory and neuroprotective mechanisms. Here we review case reports and a small trial claiming benefits in people with ALS. # als, health, lutimax, mnd, neurology, patient, treatment	ALS Untangled...	2021-05-21 19:24:53
ALS Untangled Series: Ep. 41 - Bee Venom	Bee Venom contains substances that could plausibly affect the rate of ALS progression, and there are some positive (though flawed) preclinical studies and case reports associated with it. Since it has some potentially severe side effects and has not	ALS Untangled...	2021-04-29 16:58:40



# Ambassadors In Action- Educating on Alternatives

- ALSUntangled ([www.alsuntangled.org](http://www.alsuntangled.org))
  - Started 2009
  - Systematically assesses AOTs, toward ultimately helping PALS make more informed decisions
  - Ambassadors have provided ideas for new reviews, optimizing our website



The screenshot shows the ALSUntangled website homepage. At the top left is the logo, which consists of the text "ALS" in a stylized font with a blue and yellow color scheme, and "untangled" in a smaller, blue font below it. To the right of the logo is a navigation menu with the following items: "HOW TO USE", "MISSION & METHODS", "COMPLETED REVIEWS", "FUTURE REVIEWS", and "SEARCH". Below the navigation menu is a main content area with a light gray background. The text in this area reads: "ALSUntangled reviews alternative and off label treatments, with the goal of helping people with ALS make more informed decisions about them." Below this text are three blue square buttons with white icons and text: "About Our Method" (with an information icon), "Completed Reviews" (with a magnifying glass icon), and "Future Reviews" (with a microscope icon). At the bottom of the page is a photograph of several glass test tubes in a rack, with a blurred background. Overlaid on this photograph is the text: "Scientifically reviewing alternative and off label ALS treatments to facilitate more informed decision-making".

# Ambassadors In Action-Accelerating Regulatory Pathway

- Participated (with many others) in creating ALS FDA Drug Development Guidance
- Participated (with many others) in recent meetings with FDA, congress related to regulatory aspects of drug development
- Testified at recent FDA hearings on AMX0035
  - Approved in September 2022

**BLOG POST** from the **ALS ASSOCIATION**

## Case of AMX0035 Proves Advocacy from ALS Community Can Impact Drug Development



# Conclusions

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- Empowering patients to be partners, rather than subjects, has led to more and better ALS options
- We really are “better together”



# Expectations

- Expectations from faculty in this program are to:
  - Teach you about the research process, how to critique a scientific publication, the ALS pipeline, barriers to success, and opportunities for overcoming these barriers via education and advocacy;
  - Lead monthly PEACe Calls/Meetings in which you will be presented with research engagement opportunities
  - Be available from now forward to you for questions, suggestions and mentoring.



# Expectations

- Expectations from attendees in this program are to:
  - Engage in discussion throughout this program and afterward
  - Read the selected paper and be prepared to weigh in on a critique of it
  - Complete your evaluation form afterward to help us improve the program
  - Become “Research Ambassadors”; In this role, to educate and advocate to/for other PALS, CALS, decision makers and help us design better trials and awareness campaigns
  - Participate in PEACe Meetings
  - Maintain NEALS “tracker” with “contacts” you make, participate in NEALS Research Ambassadors’ Facebook page

## BY THE NUMBERS Outreach Efforts by Research Ambassadors





Questions

Thanks

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You!

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Other Research  
Ambassadors

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Sponsors

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Faculty