



AMERICAN BRAIN FOUNDATION
 Research Advisory Committee Meeting
 October 1, 2021
 3:00 p.m. ET/ 2:00 p.m. CT/ 1:00 p.m. MT/ 12:00 p.m. PT
 Conference Call

Zoom link: <https://aan.zoom.us/j/3682078427>

Committee Members	Robert Griggs, MD, Chair; Raymond Roos, MD, Vice Chair; Jose Biller, MD; Carsten Bonnemann, MD; Jose E. Cavazos, MD, PhD; Jacqueline French, MD; Na Tosha Gatson, MD, PhD; James Grotta, MD; Walter Koroshetz, MD; Mark Mehler, MD; Bruce Ovbiagele, MD, MSc, MAS; Ronald Petersen, MD, PhD; Ralph Sacco, MD; Eugene Scharf, MD; Ira Shoulson, MD; Gordon Smith, MD; Reisa Sperling, MD, MMSc; Phyllis C. Zee, MD; David Dodick, MD; Natalia Rost, MD; Christy Phelps; Mary Post, MBA, CAE
Staff	Jane Ransom, ED; Julia Miglets-Nelson, PhD

AGENDA ITEM	PRESENTED BY
1. Call to Order (:00) Approval of the August 6, 2021 minutes	Robert Griggs, MD
2. Cure One, Cure Many Award in LBD Update (:03)	John Morris, MD
3. Subcommittee Breakouts (:15)	
a. Health Disparities Subcommittee <ul style="list-style-type: none"> Consider potential funding partnerships 	Bruce Ovbiagele, MD, MSc, MAS Jose E. Cavazos, MD, PhD
b. Next Generation Research Grants Subcommittee <ul style="list-style-type: none"> Discuss category groupings for current and future awards 	Jacqueline French, MD Gordon Smith, MD
c. Special Initiatives Subcommittee <ul style="list-style-type: none"> Consider potential funding opportunities 	Ron Petersen, MD, PhD Raymond Roos, MD
4. Report from Health Disparities Subcommittee (:40)	Bruce Ovbiagele, MD, MSc, MAS Jose E. Cavazos, MD, PhD
5. Report from Next Generation Subcommittee (:45)	Jacqueline French, MD Gordon Smith, MD
6. Report from Special Initiatives Subcommittee (:50)	Ron Petersen, MD, PhD Raymond Roos, MD
Adjourn	

Meeting Materials:

- Minutes of August 6, 2021 (p. 2)
- LOI: Neuroinflammation (p. 4)
- 2022 and 2023 Next Generation Research Grants (p. 6)

American Brain Foundation
Research Advisory Committee Meeting
August 6, 2021
3:00 p.m. ET / 2:00 p.m. CT / 1:00 p.m. MT / 12:00 p.m. PT
Conference Call

Meeting Minutes

In Attendance: Robert Griggs, MD, Chair; Raymond Roos, MD, Vice Chair; Jose Biller, MD; Jose E. Cavazos, MD; Jacqueline French, MD; Na Tosha N. Gatson, MD, PhD; Walter Koroshetz, MD; Mark Mehler, MD; Ralph Sacco, MD; David Dodick, MD

Staff: Jane Ransom; Julia Miglets-Nelson, PhD; Emily Christian

Excused: Carsten Bonnemann, MD; Merit Cudkowicz, MD; James Grotta, MD; Bruce Ovbiagele, MD; Ron Petersen, MD, PhD; Eugene Scharf, MD; Ira Shoulson, MD; Gordon Smith, MD; Reisa Sperling, MD; Phyllis C. Zee, MD, PhD; Mary Post, MBA, CAE; Christy Phelps; Natalia Rost, MD

The meeting was called to order by Dr. Robert Griggs at 2:01 p.m. CT. The meeting minutes of June 4, 2021 were approved.

- 1. Research Program Updates:** Julia Miglets-Nelson, PhD provided an update on the ABF's research program. The research program has been restructured into two broad categories – Next Generation Research Grants and Cure One, Cure Many Initiatives – to give better clarity to donors and applicants. The Next Generation Research Grants are the ABF's flagship program and provide two- and three-year fellowship funding to early career clinician scientists in a variety of disease areas. In 2022, the ABF plans to offer 18 such awards. Applications for the 2022 awards close on October 1, 2021. The Cure One, Cure Many Initiatives include large-scale special initiatives like the LBD Biomarker project, and the neuroinflammation initiative that is under development by the Special Initiatives Subcommittee. Pre-applications for the LBD Biomarker project closed on July 30, 2021, and the ABF received 21 pre-applications. The selection committee will meet on August 26 to review the pre-applications and invite full proposals, which will be due on October 29. The recipient will be selected in December, and announced in January 2022.
- 2. 2022 Scientific Breakthrough Award:** Dr. Raymond Roos presented the nominees for the 2022 Scientific Breakthrough Award. The ABF solicited nominations from the ABF Board and RAC, and the AAN Science Committee. The nominees were Stephen Hauser, MD; Leigh Hochberg, MD, PhD; Vanda Lennon, MD, PhD; Sabrina Paganoni, MD, PhD; and Rudolph Tanzi, PhD. The selection committee chose Dr. Stephen Hauser as the recipient of the 2022 award. Dr. Hauser will be featured at the ABF's Commitment to Cures gala at the 2022 AAN Annual meeting.

For the 2023 award and beyond, the ABF will solicit nominations from its partner organizations, and hopes to send the nomination survey to the entire AAN membership. Nominees from the past three years will also be considered.

3. **Subcommittee Breakouts:** The Health Disparities, Next Generation Research Grants, and Special Initiatives subcommittees met in Zoom breakout rooms. A summary of each subcommittee's discussion follows below.

Health Disparities Subcommittee: The Health Disparities Subcommittee reviewed and discussed the RFA for the 2022 Clinical Research Training Scholarship in Neurological Healthcare disparities. The subcommittee also discussed how the ABF might frame a new Clinical Research Training Scholarship reserved for a researcher who is from a group underrepresented in the field of neurology, and how the ABF might find funding for both awards.

Next Generation Subcommittee: The Next Generation Subcommittee reviewed the scope of its charge relative to the role of the AAN's Science Committee in setting the criteria for the research scholarships, and turned its focus to the gaps between the number and disease areas of awards offered, and the number of applicants. The subcommittee noted that many worthy applications do not receive funding, which can be disheartening to promising applicants, and suggested that applicants who are not awarded funding should be alerted that their work is fundable, but that the ABF does not have enough funding to offer.

Special Initiatives Subcommittee: The Special Initiatives Subcommittee discussed the scope of neuroinflammation within the proposed new special initiatives. From a donor perspective, it is likely advantageous to include many diseases. It is also important to emphasize understanding of the mechanisms of neuroinflammation, because the process itself is not inherently good or bad. The subcommittee also began a discussion about the amount needed to fund such an initiative.

Adjourned 3:00 p.m. CT.

September ___, 2021

[NAME]

[ADDRESS]

Defeat Brain Disease: Harnessing Neuroinflammation

Dear [NAME],

Central Nervous System diseases like multiple sclerosis, brain tumor, epilepsy, neurodegeneration, stroke, neuromuscular disorders, dementia, migraine, neuropathy, traumatic brain injury, and COVID-19 associated brain disease, affect at least 3 billion people worldwide and 60% of the US population. These diseases attack the essence of humanness: thought, speech, emotion, and movement.

The American Brain Foundation (ABF) proposes innovative research to elucidate the mechanisms of neuroinflammation, which is responsible for or contributes to a multitude of brain diseases and disorders. Our initiative— *Harnessing Neuroinflammation*—integrates brain diseases under the single umbrella of neuroinflammation, noting this process could be protective or destructive as a primary physiologic process in central nervous system disease states. We will prioritize projects using deep machine learning and other innovative tools of artificial intelligence to dissect the complex inflammatory cascades and identify key mediators that contribute to or underlie neurological diseases. We will also afford special attention, but not limited to, those projects which incorporate the role of the gut microbiome in neuroinflammation. These approaches promise a qualitative leap in preventing, treating, and curing a multitude of brain diseases. (See the attached topic reference page for a brief description of the key points).

ABF is backed by the 36,000 neurologists of the American Academy of Neurology (AAN), our founder and research partner. The largest organization of neurologists in the world, AAN will supply its top scientists to vet project applications for the *Harnessing Neuroinflammation* initiative, assuring that the best and brightest scientists and most promising research projects will be supported.

To execute *Harnessing Neuroinflammation*, ABF seeks \$ million to invest in innovative scientific investigations of neuroinflammation. We ask that you consider meeting with leaders from ABF and AAN to further discuss this initiative. Our executive director Jane Ransom will be following up with you regarding this letter. Please feel free to contact her at jransom@americanbrainfoundation.org.

Sincerely,

David Dodick, MD
Board Chair

Topics Reference Sheet

Neuroinflammation. The process by which biological cues and triggers cause inflammation within nervous system tissues. Often, the inflammatory process is further mediated by autoimmune, allergic, hormonal, traumatic, infectious, toxic, or metabolic changes within the brain and spinal cord. Harnessing neuroinflammation involves:

- Detection of putative factors that drive or suppress inflammation within the CNS
- Identification of potential systemic co-signaling mediators
- Regulation of the duration and extent of inflammation within the CNS

Gut Microbiome (GM). In humans, the compartment called the *gut microbiome* is comprised of the microorganisms, viruses, bacteria, fungi, protozoa, and their molecular and genetic material within the gastrointestinal tract. The permanence of the GM environment is an essential component in physiological processes such as metabolism, immunity, neuronal, as well as endocrine and other hormonal responses. Harnessing neuroinflammation incorporates the gut microbiome through the following approaches:

- Determine the potential gut microbiota to influence local, regional, or distant tissues
- Assess the role for genetic/molecular variability to influence inflammation
- Investigate the role of the gut to eliminate, modify, or neutralize inflammatory factors

Artificial intelligence (AI). The theory that humans can design computer systems that use algorithms and computations to more rapidly, precisely, and objectively do the work that would normally require human intelligence. This process explores how computers can amplify basic human sensory inputs and apply them to standardized or seemingly random scenarios to arrive at more precise outputs that improve subsequent human decision-making and knowledge.

- Establish effective diagnostic modalities for high throughput analysis
- Determine the pervasiveness of specific AI techniques as they apply across neurologic disease states

It is our goal to be innovative in our evaluation of neuroinflammatory processes. The potential to integrate various neurological disorders under the single umbrella of neuroinflammation and exploiting the roles of the gut microbiome has implications to identify common ground within CNS pathophysiologic processes. We propose to use AI techniques to objectively assess a variety of neurological disorders to identify common clinical, imaging, and serum/CSF-derived features that offer new therapeutic targets. It is with this unified approach that we strive to target a single process, and in doing so, treat a multitude of neurologic disease states and drive our field towards a common cure.

2022 Awards	
Confirmed	
Award	Partner
CRTS in ALS	ALS Association
Richard Olney CSDA in ALS	ALS Association
CRTS in Lewy Body Disease	Alzheimer's Association & Mary Groff Charitable Trust
Susan Spencer, MD CRTS in Epilepsy	American Epilepsy Society & Epilepsy Foundation
CTRS in Cognitive Aging and Age-Related Memory Loss (x2)	McKnight Brain Research Foundation
CRTS in Parkinson's Disease	Parkinson's Foundation
Katzman CRTS in Alzheimer's	Alzheimer's Association
(NEW) CRTS in Migraine	Amgen
(NEW) CRTS in Frontotemporal Degeneration	Association for Frontotemporal Degeneration
CSDA in Myasthenia Gravis	Myasthenia Gravis Foundation of America
(NEW) CRTS in Muscular Dystrophy (x2)	Muscular Dystrophy Association
CRTS in Neuromuscular Disease	Muscle Study Group
(NEW) CRTS in Neurodisparities	Hearst Foundation & Eisai, Inc.
Lawrence Brass Stroke CRTS	American Heart Association
CRTS in Tourette Syndrome	Tourette Association of America
CSDA in MS	National MS Society (external)
2023 Awards	
Confirmed	
Award	Partner
CRTS in ALS and Related Disorders	CRaATe Consortium
CTRS in Cognitive Aging and Age-Related Memory Loss (x2)	McKnight Brain Research Foundation
Lawrence Brass Stroke CRTS	American Heart Association
Pending	
CRTS in Neuromuscular Disease	Muscle Study Group
CRTS in ALS	ALS Association

Richard Olney CSDA in ALS	ALS Association
Susan Spencer, MD CRTS in Epilepsy	American Epilepsy Society & Epilepsy Foundation
CRTS in Migraine	Amgen
CRTS in Parkinson's	Parkinson's Foundation
CRTS in Frontotemporal Degeneration	Association for Frontotemporal Degeneration
CSDA in MS	National MS Society
CRTS in Tourette Syndrome	Tourette Association of America
CRTS in Muscular Dystrophy (x2)	Muscular Dystrophy Association
CRTS in Peripheral Neuropathy	Society for Peripheral Neuropathy