



F32  
**BOOT CAMP**

**From start to submission** (grants due April 8, 2020)

**Summary and Narrative  
Cover Letter**



## Project Summary/Abstract

The narrative and the abstract are the two pieces of your grant that will be available to the public in NIH Reporter



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Important to make it obvious that this project is a valuable expenditure of federal funds = Public Health Benefit



## Project Summary/Abstract

- 30 lines of text, 0.5 inch margins, 11 pt font
- Succinct and accurate description of the proposed work when separated from the application
- State the application's broad, long-term objectives and specific aims, making reference to the health relatedness of the project (i.e., relevance to the mission of the agency).
- Describe concisely the research design and methods for achieving the stated goals.
- This section should be informative to other persons working in the same or related fields and insofar as possible understandable to a scientifically or technically literate reader.
- Avoid describing past accomplishments and the use of the first person.
- Finally, please make every effort to be succinct.



## Project Summary/Abstract

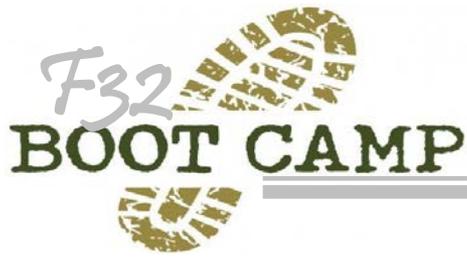
- Tips
  - Take your aims and work backwards
  - The purpose of this section is not to provide new, necessary information to the reviewers
    - It is OK to repeat full sentences



# Project Summary/Abstract

## Example from Emory funded F32 in NIH Reporter

Sleep disorders **affect millions of people** and can be co-morbid with neurodegenerative diseases such as Parkinson's disease (PD). In addition to the iconic motor impairments of PD, sleep disorders, including excessive sleepiness, plague many individuals with PD and significantly reduce their quality of life. **However, the neurobiological mechanisms underlying excessive sleepiness in PD remain to be elucidated.** Although degeneration of dopamine (DA) neurons in the substantia nigra pars compacta (SN) is considered the primary neuropathology of PD responsible for the disease's motor impairments, these neurons do not mediate sleep-wake cycles. An understudied population of DA neurons in the ventral periaqueductal gray (vPAG) promote wakefulness, and although these DA neurons do not degenerate in PD, dysfunction of these neurons may occur in PD due to reduced noradrenergic input. Indeed, catastrophic loss of noradrenergic locus coeruleus (LC) neurons occurs in PD and actually precedes the death of SN neurons, the LC promotes arousal and its activity tracks with sleep-wake cycles, and the LC projects to the vPAG. Therefore, **I hypothesize** that dysfunction of an LC-vPAG arousal circuit underlies excessive sleepiness in PD. To test this hypothesis, this project will utilize in vitro electrophysiology, behavioral assays of arousal, Designer Receptors Exclusively Activated by Designer Drugs (DREADDs), and site-specific behavioral pharmacology in genetically engineered mice. **Aim 1** will determine whether suppression of LC transmission in the vPAG decreases arousal, **Aim 2** will test whether direct activation of vPAG DA neurons increases arousal, and **Aim 3** will determine the neurophysiology and pharmacology mediating the LC-vPAG arousal circuit. **These experiments will investigate the role of this novel LC-vPAG circuit in arousal and how dysfunctions of this circuit may underlie the excessive sleepiness that occurs in PD and other sleep disorders.**



## Project Narrative

- Using no more than two or three sentences, describe the relevance of this research to public health
- If the application is funded, this public health relevance statement will be combined with the project summary (above) and will become public information.

### Tips

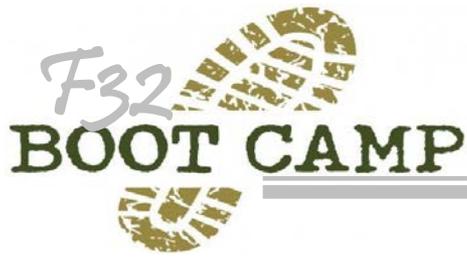
- Avoid abbreviations and technical language
- Write in lay language (8<sup>th</sup> grade English)



## Project Narrative

### Tips

- Sentence 1 – Public Health Issue
  - (ie a version of the opening sentence from your summary, aims and significance)
- Sentence 2 – What this project will do
- Sentence 3 – What will be possible with the results
  - Back to the public health relevance, moving the field forward



## Project Narrative

### Example of Emory funded F32 in NIH Reporter

The RNA exosome complex is altered in patients who suffer from several devastating diseases including Ponotocerebellar Hypoplasia Type 1b.

Individuals affected typically do not live past childhood due to defects in brain development and function.

The proposed studies will create a fruit fly model to study the specific changes that cause this class of disease.



## Project Narrative

### Example of Emory funded F32 in NIH Reporter

In addition to the well-known motor impairments, patients with Parkinson's disease (PD) often suffer from non-motor symptoms, including excessive sleepiness, which reduces their quality of life.

This project examines a novel circuit in the brain that could be responsible for excessive sleepiness in PD.

## Project Summary/Abstract - Tips

- Mirror the language used in the aims and the research proposal
  - These should all convey similar messages
  - They should read like they were written by the same person
  - After you are done, go back and read all sections to make sure they are consistent with each other

Narrative

3  
sentences

Summary

30  
lines

Aims

1  
page

Research

6  
pages



## Cover Letter

- Required for an F32 application
- Internal use only (not used or given to reviewers)
- Address to the Division of Receipt and Referral, in accordance with the FOA and/or these instructions



## Cover Letter – Should Include

- Application Title
- Title of FOA (PA or RFA)
- When intending to submit a video as part of the application, the cover letter must include information about the intent to submit it; if this is not done, the video will not be accepted
- Include a statement in the cover letter if the proposed studies will generate large-scale human or non-human genomic data
- List of referees (including name, departmental affiliation, and institution).