

# Supplemental Material

*CBE—Life Sciences Education*

Margherio *et al.*



# BRAINS

*Broadening the Representation of  
Academic Investigators in NeuroScience*

## **BRAINS Application**

### **Instructions**

The application packet consists of the following seven items. You may want to prepare the statement response documents in a Word file to expedite completion of the application.

- 1) A *one-paragraph statement* explaining how you feel you will benefit from a program like BRAINS.
- 2) A *one-paragraph statement* explaining where you expect to be professionally in five years and in ten years and the top challenges to your career success during those time periods.
- 3) A *one-page statement* explaining your research and teaching program and interests for a general neuroscience audience.
- 4) Your *C.V.*: Please email this to: [brains@uw.edu](mailto:brains@uw.edu)
- 5) One or two *recommendations*. Please send names and email addresses of the people who will be submitting a recommendation to [brains@uw.edu](mailto:brains@uw.edu). The first recommender should be a current or recent advisor/PI, mentor or department chair and the second (optional) recommender can be an individual of your choosing. The recommenders will be contacted via email and asked to complete an online recommendation form which will provide the BRAINS selection committee with the following information:
  - The additional support or resources you may need to move forward in your neuroscience career;
  - The ways your career will be impacted by participating in BRAINS; and
  - Your expected career trajectory in the next five and ten years.
- 6) A mandatory *online questionnaire*: This survey will take approximately 10-15 minutes to complete and will provide information about your experiences and your expectations of the BRAINS program. Please complete the questionnaire, as the answers are important for participant selection.
- 7) *Documentation of eligibility*: BRAINS is funded by NIH to increase diversity within the neuroscience workforce on a national basis. At the postgraduate level and beyond, this includes certain race, ethnicity, and disability statuses. Applicants must be citizens or permanent residents of the United States. In order to be eligible to participate in BRAINS, you must be from a group recognized as underrepresented in neuroscience:
  - a) Individuals from racial and ethnic groups that have been shown by the National Science Foundation to be underrepresented in health-related sciences on a national basis. The following racial and ethnic groups have been shown to be underrepresented in biomedical research: African Americans, Hispanic Americans, Native Americans, Alaskan Natives, Hawaiian Natives, and natives of the US Pacific Islands. [Learn more.](#)
  - b) Individuals with disabilities (defined as those with a physical or mental impairment that substantially limits one or more major life activities), and/or
  - c) Individuals from socially, culturally, economically, or educationally disadvantaged backgrounds that have inhibited their ability to pursue a career in health-related research (see note below).

Note: In addition to race, ethnicity, and disability status, individuals underrepresented in neuroscience or a neuroscience-related field also include those from socially, culturally, economically, or educationally disadvantaged backgrounds that have inhibited their ability to pursue a career in health-related research. NIH indicates that these criteria are mostly applicable to individuals at the undergraduate student level or lower. However, if you feel you qualify based on these criteria, please explain in the text box below. Decisions about eligibility for BRAINS will be made on a case-by-case basis in conjunction with the NIH NINDS program officer.

Pursuant to NIH guidelines, please submit documentation from an institutional official that certifies you meet one of these eligibility criteria. Please see the BRAINS application website (<http://depts.washington.edu/brains/symposiumapplication.html>) for a sample letter. Please email [brains@uw.edu](mailto:brains@uw.edu) with any questions concerning this documentation.

**Program Evaluation**

BRAINS attendees will be asked to share information from their application, complete a short feedback survey at the BRAINS symposium, and take annual web-based surveys in order to assess the outcomes of BRAINS. Additionally, *all applicants* will be invited to complete a brief survey (and attach their CV) in 2016 about their career progression. Participation in the evaluative research is voluntary. You are not obligated to participate and your decision not to participate will not preclude you from being selected as a participant in the symposium.

**Online Survey (in Catalyst)**

1. Please enter your first and last name (consistent with the rest of your BRAINS application):  
[text box]
2. Please provide a permanent email address:  
[text box]
3. Please provide a one-paragraph statement explaining how you feel you will benefit from a program like BRAINS.  
[text box]
4. Please provide a one-paragraph statement explaining where you expect to be professionally in five years and in ten years and the top challenges to your career success during those time periods.  
[text box]
5. Please provide a one-page statement explaining your research and teaching program and interests for a general neuroscience audience.  
[text box]

**PART 1: SKILLS AND CAREER SELF-EFFICACY**

6. How strongly do you agree or disagree with the following statement(s):  
“I have a good understanding of the requirements of... “

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N/A
Success in my present position.						
Success in obtaining an independent research position (e.g. faculty or research scientist).						
Success in becoming tenured.						
Success in an academic environment.						
Success in a research environment.						
Success in neuroscience or a neuroscience-related field.						
Seeking an alternative career path.						

7. Please indicate how strongly you agree or disagree with the following statement(s): (Please answer each item based on how you feel now, not on your anticipated (or previous) ability).  
“I am confident I am able to...”

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N/A
<b>Research</b>						
• Establish an independent research program.						
• Successfully manage the life cycle of a research study (design, collect data, analyze, and report findings).						
• Successfully fund my lab.						
• Write successful research proposals.						
• Advance scientific knowledge within my research area.						

• Establish name recognition in my field.						
• Conduct my research in an ethical manner.						
• Write articles worthy of publication.						
• Clearly communicate my research via presentation to my peers.						
• Clearly communicate my research to the public.						
<b>Management/administration</b>						
• Effectively communicate with my PI.						
• Build my own research lab based on my specialty.						
• Effectively manage my time to meet research, teaching, and service obligations.						
• Effectively lead a research lab.						
• Manage a research budget.						
• Navigate the political environment of my institution.						
<b>Self-development</b>						
• Stay abreast of developments in my field.						
• Pursue a career in neuroscience or a neuroscience-related field.						
• Contribute to neuroscience-related fields.						
• Resolve conflict with my colleagues.						
• Prepare for tenure review.						
• Negotiate my promotion/tenure process.						
• Advocate for a satisfactory job offer.						
• Ask for help or advice when needed.						
• Overcome negative stereotypes related to my group membership (race/ethnicity, disability status, and/or socially, culturally, economically, or educationally disadvantaged background).						
<b>Networking</b>						
• Promote myself and my research to my colleagues.						
• Connect to others in my field.						
• Identify colleagues for research collaborations.						
• Contribute to discipline-specific professional associations.						
• Contribute to professional societies related to my group membership (race/ethnicity, disability status, and/or socially, culturally, economically, or educationally disadvantaged background).						

<b>Mentoring</b>						
• Find people who can offer me feedback or guidance on my career.						
• Serve as a mentor to peers.						
• Serve as a mentor to students.						
• Find people who can help me navigate being underrepresented in the field of neuroscience.						
<b>Teaching and Service</b>						
• Influence the next generation of scientists in my field.						
• Effectively teach my discipline to students.						
• Develop my own course curricula.						
• Serve as a role model to those underrepresented in the field of neuroscience.						
• Contribute to the governance of my institution.						
• Make positive contributions to my department.						
• Participate in influential outreach activities.						
• Find a successful balance between research, teaching, and service obligations.						
<b>Fulfillment and Goals</b>						
• Be valued in my department.						
• Garner respect in my field.						
• Balance work and personal demands.						
• Navigate a career path of my choosing.						
• Pursue a career path that will satisfy my larger goals in life.						

8. Describe how your group membership (race/ethnicity, disability status, and/or socially, culturally, economically, or educationally disadvantaged background) contributes to your experiences in the neuroscience profession:

[text box]

**PART 2: NETWORKING, FORMAL AND INFORMAL MENTORING**

9. Which categories below best describe your research area? Please mark all that apply.

- Cellular and molecular neurobiology
- Cognitive and behavioral neuroscience
- Developmental neuroscience
- Systems neurobiology

10. How often do you participate in the following networking activities?

	Never	Rarely	Sometimes	Very Often	N/A
Formal and informal research groups					
Department and/or campus committees					

Collaborations with colleagues on proposals, papers and/or projects					
Professional development workshops and/or activities					
Professional meetings					
Career progress or career issues discussions with peers and/or mentors					
Work/life balance discussions with peers and/or mentors					
Constructive feedback from peers and/or mentors					
Career support from peers and/or mentors					
Career support with peers with my same group membership (race/ethnicity, disability status, and/or socially, culturally, economically, or educationally disadvantaged background)					

11. How strongly do you agree or disagree with the following statements about mentoring?

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N/A
Mentoring has impacted my career development.						
I can benefit from a mentoring relationship.						
My mentor(s) and I meet often enough to benefit my career.						
My mentor(s) helps me set goals for my professional development.						
I discuss work/life issues with my mentor(s).						
My mentor(s) has involved me in professional activities outside of my institution.						
My mentor(s) has involved me in activities within my institution.						
My mentor(s) provides a safe space to share information.						
My mentor(s) provides a safe space to receive constructive feedback.						
My mentor(s) provides emotional support.						
I serve as a mentor to others in my field.						
I seek mentors to help me navigate being a member of a group (race/ethnicity, disability status, and/or socially, culturally, economically, or educationally disadvantaged background) which is underrepresented in my field.						
I seek multiple mentors for various aspects of my career development.						
I am proactive in seeking career development advice from my mentor(s).						

12. How strongly do you agree or disagree with the following statements about your sense of belonging in neuroscience?

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N/A
I have built strong relationships with a sufficient number of colleagues/peers in my field.						
I regularly feel included in networks within my institution.						
I regularly feel included in networks in my professional societies.						
My networks adequately support research collaborations.						
I feel that my underrepresented group membership in neuroscience facilitates my networking ability.						
I feel that my underrepresented group membership in neuroscience hinders my networking ability.						
I feel connected to other scientists in my research areas.						

### PART 3: CAREER SATISFACTION

13. How satisfied are you with the way your career is progressing?

- Very satisfied  
 Satisfied  
 Neither satisfied nor dissatisfied  
 Dissatisfied  
 Very dissatisfied

14. Please describe why you may or may not be satisfied with your career progression. [text box]

15. What types of careers in neuroscience or a neuroscience-related field can you see yourself pursuing? [text box]

16. How likely are you to pursue a tenure track position in academia?

- Already have a tenure track position  
 Very likely  
 Somewhat likely  
 Neutral  
 Somewhat unlikely  
 Very unlikely

17. Please describe why you may or may not be considering a tenure track position in academia? [text box]

18. Do you expect to be in your current or a similar position one year from now? Why or why not? [text box]

19. If you answered “No” to the previous question, please select a position you think you may be doing one year from now.

- Research Technician  
 Lab Manager  
 Postdoctoral Researcher  
 Research Scientist/Staff Scientist



- Lead Research Scientist/Staff Scientist
- Lecturer
- Assistant Research Professor
- Associate Research Professor
- Research Professor
- Assistant Professor (tenure track)
- Associate Professor
- Full Professor with tenure
- Head/Chair of Department
- Other

**PART 4: YOUR BACKGROUND**

20. Which of the following best describes your current position?

- Research Technician
- Lab Manager
- Postdoctoral Researcher
- Research Scientist/Staff Scientist
- Lead Research Scientist/Staff Scientist
- Lecturer
- Assistant Research Professor
- Associate Research Professor
- Research Professor
- Assistant Professor (tenure track)
- Associate Professor
- Full Professor with tenure
- Head/Chair of Department
- Other:

21. How many years have you been in this position?

- 0-1 year
- 1-2 years
- 2-3 years
- 3-4 years
- More than 4 years

22. In what type of institution are you currently employed?

- Biotechnology Company
- College
- Consulting Company
- Engineering Company
- Government Institution/Agency
- Publishing Company
- Non-governmental Organization (NGO)
- Research Institution
- University
- Not currently employed
- Other:

23. What is the name of your institution? [text box]

24. If you are employed in higher education, please check the description which best describes your institution.

- Research
- Doctoral/Comprehensive
- Teaching/Liberal Arts

Other

25. If you answered the previous question, what is the name of your department? [text box]

26. What year did you receive your Ph.D. (i.e. 1997/four digits only)? [text box]

27. Check the box that best describes your Ph.D. institution.

Research

Doctoral/Comprehensive

Teaching/Liberal Arts

Other

28. How many postdoctoral fellowships have you had (including your current positions, if applicable)?

1

2

3

4 or more

29. What is your sex?

Female

Male

30. What is your race? (Please check all that apply.)

American Indian or Alaskan Native

Asian (e.g. Chinese, Filipino, Indian subcontinent)

Black or African American

Native Hawaiian or Pacific Islander (e.g. Chamorro, Guamanian, Samoan)

White or Caucasian

Other: \_\_\_\_\_

31. Are you of Hispanic, Latino, or Spanish origin?

Yes (skip logic to next question)

No

32. Which of the following best describes your Hispanic origin or descent?

Mexican, Mexican American, Chicano

Puerto Rican

Cuban

Another Hispanic, Latino, or Spanish origin –for example, Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on.

33. Are you a US citizen?

Yes

No (skip logic to next question)

34. Are you a permanent resident of the US?

Yes

No

35. Do you have a disability?

Yes (skip logic to next question)

No

36. Please indicate which of the following areas are impacted by your disability: (Please mark all that apply.)

Attention

Hearing

- Learning
- Mental Health
- Mobility/ Dexterity
- Physical Health
- Speech
- Vision
- Other: \_\_\_\_\_

37. Relationship Status:

- Single
- Married
- Partnered
- Divorced/Separated
- Widowed

38. Do you have children?

- Yes
- No

39. [Insert approved Information Statement language here with options to consent or not]

Thank you for completing the questionnaire.

## BRAINS Annual Survey

The University of Washington is conducting an assessment of the outcomes of the BRAINS program. As a participant in the NIH-funded BRAINS (Broadening the Representation of Academic Investigators in Neuroscience) we would like to ask for your assistance in helping evaluate the impact of BRAINS on your career development.

Your input is important in building a representative summary of participant views. Your participation is voluntary and you may, of course, skip any question you do not wish to answer. Individual responses are confidential, and all results will be presented in aggregate form only.

This survey should take approximately 25 minutes to complete.

### Online Survey (in Catalyst)

- Please provide a permanent email address:  
[text box]

### **PART 1: SKILLS AND CAREER SELF-EFFICACY**

- How strongly do you agree or disagree with the following statement(s):  
“I have a good understanding of the requirements of...”

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N/A
Success in my present position.						
Success in obtaining an independent research position (e.g. faculty or research scientist).						
Success in becoming tenured						
Success in an academic environment.						
Success in a research environment.						
Success in neuroscience or a neuroscience-related field.						
Seeking an alternative career path.						

- Please indicate how strongly you agree or disagree with the following statement(s): (Please answer each item based on how you feel now, not on your anticipated (or previous) ability).  
“I am confident I am able to...”

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N/A
<b>Research</b>						
• Establish an independent research program.						
• Successfully manage the life cycle of a research study (design, collect data, analyze, and report findings).						
• Successfully fund my lab.						
• Write successful research proposals.						
• Advance scientific knowledge within my research area.						
• Establish name recognition in my						

field.						
• Conduct my research in an ethical manner.						
• Write articles worthy of publication.						
• Clearly communicate my research via presentation to my peers.						
• Clearly communicate my research to the public.						
<b>Management/administration</b>						
• Effectively communicate with my PI.						
• Build my own research lab based on my specialty.						
• Effectively manage my time to meet research, teaching, and service obligations.						
• Effectively lead a research lab.						
• Manage a research budget.						
• Navigate the political environment of my institution.						
<b>Self-development</b>						
• Stay abreast of developments in my field.						
• Pursue a career in neuroscience or a neuroscience-related field.						
• Contribute to neuroscience-related fields.						
• Resolve conflict with my colleagues.						
• Prepare for tenure review.						
• Negotiate my promotion/tenure process.						
• Advocate for a satisfactory job offer.						
• Ask for help or advice when needed.						
• Overcome negative stereotypes related to my group membership (race/ethnicity, disability status, and/or socially, culturally, economically, or educationally disadvantaged background).						
<b>Networking</b>						
• Promote myself and my research to my colleagues.						
• Connect to others in my field.						
• Identify colleagues for research collaborations.						
• Contribute to discipline-specific professional associations.						
• Contribute to professional societies related to my group membership (race/ethnicity, disability status, and/or socially, culturally, economically, or educationally disadvantaged background).						
<b>Mentoring</b>						

• Find people who can offer me feedback or guidance on my career.						
• Serve as a mentor to peers.						
• Serve as a mentor to students.						
• Find people who can help me navigate being underrepresented in the field of neuroscience.						
<b>Teaching and Service</b>						
• Influence the next generation of scientists in my field.						
• Effectively teach my discipline to students.						
• Develop my own course curricula.						
• Serve as a role model to those underrepresented in the field of neuroscience.						
• Contribute to the governance of my institution.						
• Make positive contributions to my department.						
• Participate in influential outreach activities.						
• Find a successful balance between research, teaching, and service obligations.						
<b>Fulfillment and Goals</b>						
• Be valued in my department.						
• Garner respect in my field.						
• Balance work and personal demands.						
• Navigate a career path of my choosing.						
• Pursue a career path that will satisfy my larger goals in life.						

4. How do you feel your participation in BRAINS has supported your ability to utilize career development skills (as described in the previous questions)?  
[text box]

**PART 2: NETWORKING, FORMAL AND INFORMAL MENTORING**

5. How often do you participate in the following networking activities (excluding participation in the BRAINS symposium, Mentoring Circles, or Continuous Career Invention)?

	Never	Rarely	Sometimes	Very Often	N/A
Formal and informal research groups					
Department and/or campus committees					
Collaborations with colleagues on proposals, papers and/or projects					
Professional development workshops and/or activities					
Professional meetings					
Career progress or career issues discussions with peers and/or mentors					
Work/life balance discussions with peers and/or					

mentors					
Constructive feedback from peers and/or mentors					
Career support from peers and/or mentors					
Career support with peers with my same group membership (race/ethnicity, disability status, and/or socially, culturally, economically, or educationally disadvantaged background)					

6. How do you feel your participation in the BRAINS program has supported your ability to network effectively in neuroscience (excluding participation in the BRAINS symposium, Mentoring Circles, or Continuous Career Invention)?  
[text box]

7. Do you consider the BRAINS participants, speakers, and project team as additional networks? How have you used them specifically in your career development?  
[text box]

8. How strongly do you agree or disagree with the following statements about mentoring (this may or may not include PIs, dissertation advisors, etc.)? (Again, excluding participation in the BRAINS symposium, Mentoring Circles, or Continuous Career Invention)

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N/A
Mentoring has impacted my career development.						
I can benefit from a mentoring relationship.						
My mentor(s) and I meet often enough to benefit my career.						
My mentor(s) helps me set goals for my professional development.						
I discuss work/life issues with my mentor(s).						
My mentor(s) has involved me in professional activities outside of my institution.						
My mentor(s) has involved me in activities within my institution.						
My mentor(s) provides a safe space to share information.						
My mentor(s) provides a safe space to receive constructive feedback.						
My mentor(s) provides emotional support.						
I serve as a mentor to others in my field.						
I seek mentors to help me navigate being a member of a group (race/ethnicity, disability status, and/or socially, culturally, economically, or educationally disadvantaged background) which is underrepresented in my field.						
I seek multiple mentors for various aspects of my career development.						
I am proactive in seeking career development advice from my mentor(s).						

9. How do you feel your participation in BRAINS has helped you seek and utilize mentors more effectively?

[text box]

10. Do you consider the BRAINS participants, speakers, and project team as additional mentors?  
How have you used them specifically in your career development?  
[text box]

11. How strongly do you agree or disagree with the following statements about your sense of belonging in neuroscience?

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N/A
I have built strong relationships with a sufficient number of colleagues/peers in my field.						
I regularly feel included in networks within my institution.						
I regularly feel included in networks in my professional societies.						
My networks adequately support research collaborations.						
I feel that my underrepresented group membership in neuroscience facilitates my networking ability.						
I feel that my underrepresented group membership in neuroscience hinders my networking ability.						
I feel connected to other scientists in my research areas.						

12. How do you feel your participation in BRAINS has supported your sense of belonging in neuroscience?

13. How has BRAINS supported you as an under-represented within neuroscience?  
[text box]

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**PART 3: CAREER SATISFACTION & IMPACT OF BRAINS**

14. How satisfied are you with the way your career is progressing?

- Very satisfied
- Satisfied
- Neither satisfied nor dissatisfied
- Dissatisfied
- Very dissatisfied

15. In what ways has the BRAINS program (symposium, Mentoring Circles, Continuous Career Invention) impacted your level of satisfaction with your career progression?

16. How likely are you to pursue a tenure track position in academic? (SKIP LOGIC: already have, very likely, somewhat likely, and neutral skip to #18).

- Already have tenure track position
- Very likely
- Somewhat Likely
- Neutral
- Somewhat unlikely



Very unlikely

17. What types of careers in neuroscience or a neuroscience-related field can you see yourself pursuing?[text box]

18. Please describe why you may or may not be considering a tenure track position in academia?  
[text box]

19. What practices have you changed since participating in BRAINS? Please provide concrete examples if possible.  
[text box]

20. Did you participate in the Mentoring Circle conference calls at least 50% of the time?

- Yes  
 No(Skip to 23)

21. How strongly do you agree or disagree with the following statements:  
“The Mentoring Circle experience assisted me in...”

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N/A
Developing concrete definitions of success.						
Becoming more engaged in my field.						
Overcoming roadblocks to my career success.						
Obtaining key information and resources.						
Reinforcing skills, strategies, and practices introduced at the BRAINS symposium.						
Meeting needs related to my group membership (race/ethnicity, disability status, and/or socially, culturally, economically, or educationally disadvantaged background).						

22. How is participating in the Mentoring Circle experience impacting your career?  
[text box]

23. Do you participate in Continuous Career Invention?

- Yes  
 No(Finished with survey )

24. How many months have you been involved in CCI?

- 0 - 6 months  
 7 - 12 months  
 13 - 18 months  
 19 - 24 months  
 more than 24 months

25. How strongly do you agree or disagree with the following statements:

“The Continuous Career Invention experience assisted me in...”

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N/A
Developing an improved plan for my career.						
Transforming anxiety about my career into creative energy.						
Developing greater confidence in my intuition.						
Obtaining a more accurate estimate of my career progress than I may have thought on my own.						
Developing more accurate expectations of career progression.						
Feeling supported by people who genuinely care about me and my career progress.						

26. How is participating in Continuous Career Invention impacting your career?  
[text box]

Thank you for completing this survey!