

# Supplemental Material

*CBE—Life Sciences Education*

Remich *et al.*

## **Interview Protocol for PREP Scholars – Start of PREP Program**

### Background

1. When and how did you become interested in science?
2. Did you have an idea of what you wanted to do when you started college?
3. How did you come to be in the PREP Program? What do you hope to get out of the program?
4. Why did you feel like you were not ready to apply to graduate programs when you were nearing graduation from college?

### Experiences in Undergraduate NIGMS Programs (if not applicable, skip to Question #8)

5. What was beneficial about being in MARC/RISE/IMSD? Was there anything that provided less benefit than the time required?
6. Which activity or aspect of the program had the greatest impact on your preparation for your educational/career goals?
7. Did being in MARC/RISE/IMSD shift your thinking about your future? If so, in what way(s)?

### Research Experiences

8. Tell me briefly about the different research experiences you had in college. Did you find the topics(s) of your research interesting?
9. What did you like about doing research? What attracts you to research?
10. Did you have any particularly satisfying or memorable moments from your research?
11. What don't you like about research?
12. Based on your experiences with research, can you see yourself being successful doing research in the future? Why or why not?
13. Have you experienced any differences in the ways you approached learning in the laboratory vs. learning in the science classroom?

### Career Thinking

14. Knowing you may change your mind in the future, as of today, what do you want to do when you finish the PREP Program? What attracts you to this particular option?
15. How confident are you that you will be able to do what you want to do after completing PREP? What are the biggest challenges or obstacles you see to accomplishment of your goal?
16. If something happens and you aren't able to follow your preferred plan, do you have an alternative, a Plan B? What is it?
17. Or... If you have not decided yet what you want to do, what options are you deciding among and what do you find most and least attractive about the different options?
18. Now let's talk about your longer term future plans. When you are done with all of your training, what type of job or career would you MOST like to have? Why?
19. Right now, what factors are most important to you in deciding among career options?
20. Does a desire to help others play into what you decide to do in the future?
21. How important is it to you to have a clear idea of where you are headed, specifically where you will 'be' or what your life will be like in 10-20 years?
22. Do you see any major or difficult barriers, personal or professional, you will have to overcome to achieve the career you find most attractive? How do you plan to overcome or work around these barriers?
23. How much time and energy are you willing to put in to reach your goals?

24. Who or what has influenced your thinking about career options, either positively or negatively, the most in the past or recently? How has this influenced your thinking?

### Self Reflection

25. When you step back and look at yourself, do you see yourself following the paths of others or choosing your own paths?
26. Tell me about a situation when you came up with a new idea or a unique way to solve a problem. How did you come up with the idea? What happened when you shared the idea with someone else?
27. Do you see yourself as creative?
28. What do you see as your strengths and weaknesses? How do they compare to your peers?
29. Do you feel like you have a good balance in your life? Do you see keeping a balance as getting harder or easier in the future? Why?

### Academic Careers

30. When you started college, what was your thinking about the possibility of a career as a professor? How has your thinking changed or not changed over time and why?
31. What is your current image of the career of a professor? Can you see yourself as a professor?
32. Overall, what do you see as the biggest attractions to an academic career? Are any of these most important, something you would really like to have as part of your future work life?
33. What are the least desirable elements of an academic career to you? Are any of these the most important reason why you would not pursue this career?
34. How confident are you that you could succeed in an academic career if you want to?
35. What do you hear faculty say about their careers? What do they seem to enjoy and not enjoy? Do they seem satisfied or dissatisfied?
36. How do graduate students and postdocs talk about where they are headed in their careers? What do you hear from them about their perceptions of academic careers?

### Experiences with Role Models, Mentors and Others

37. Tell me about the role models you have had in the past or currently have. How important is it to you to have role models? Is it important that your role model has had similar life experiences to you?
38. Tell me about your relationship with mentors, either research mentors or others who have been mentors for you.
39. In what ways, if any, do you think your gender and/or ethnicity have affected your education and experiences in the past, particularly related to your career choices and plans? Do you think your experiences have been different from others of a different gender or different ethnicity?
40. Have you had teachers or mentors with your same ethnic background? Is having teachers from backgrounds similar to yours important to you? If you had teachers from similar backgrounds to you, did you find yourself relating to them differently than other teachers? In what ways?

## **Interview Protocol for PREP Scholars – End of PREP Program**

### Introduction

1. Bring me up to date on what's happened since our first conversation last fall.
2. What are your plans after PREP? Why did you decide on these plans? Has your gender, race or ethnicity affected your decisions?
3. How important has your participation in PREP been for helping you shape these plans?
4. What was the graduate/medical school admissions process like for you? Did you learn anything new about yourself during the process?
5. How did you decide upon the particular school and program you chose? (if applicable)
6. Which part of the PREP Program or people were most helpful to you?
7. Is there anything you would change to improve the PREP Program?

### Research Experience

8. Could you briefly describe the research experiences you've had in PREP?
9. How have your research interests evolved this year? At this time, do you have any research questions you would like to pursue?
10. How have you changed as a researcher over the past year?
11. What do you like about doing research? What don't you like about it?
12. Did you have any particularly satisfying or memorable moments from your research since our first conversation?
13. Tell me about your lab mentor or other research mentors you have had since we talked. How have these mentors been helpful or less helpful than you needed or expected?
14. If you are going to continue in research, what do you look forward to? Is there anything that makes you nervous about continuing in research?"
15. How confident are you that you can succeed as a researcher? What has contributed to your level of confidence?

### Preparation for Graduate or Medical School

16. How well prepared are you for graduate or medical school?
17. What do you think it will take to be a successful graduate or medical student?
18. What will be easy and challenging for you in graduate/medical school? (if applicable)
19. What do you look forward to or what excites you most about graduate/medical school? (if applicable)

### Career Thinking

20. Now let's talk about your longer term future plans. When you are done with all your training, what type of job or career would you most like to have? Why?
21. Right now, what factors are the most important to you in deciding among career options?
22. Do you see any major or difficult barriers, personal or professional, you will have to overcome to achieve the career you find most attractive? How do you plan to overcome or work around these barriers?
23. Are you currently or do you plan to be in a committed relationship/marriage in the future? What impact, if any, do you think your relationship plans will have on your graduate school and career planning?
24. Do you see yourself having children in the future? What impact, if any, do you think your plans for having or not having children will have on your graduate school and career planning?

25. Since the last time we talked, who has influenced your thinking about career options, either positively or negatively, the most in the past or recently? How have they influenced your thinking?
26. How have finances played a role in your decisions about your next steps and careers?

### Academic Careers

27. What is your current image of the career of a professor? Can you see yourself as a professor?
28. Overall, what do you see as the biggest attractions to an academic career?
29. What are the least desirable elements of an academic career to you?
30. How confident are you that you could succeed in an academic career if you want to?
31. How do graduate students and post docs talk about where they are headed in their careers? What do you hear from them about their perceptions of academic careers?

### Being a Scientist

32. Do you see yourself as a scientist? How much is being a scientist part of who you are? Are there things in your life that have or could pull you away from being a scientist?
33. When you think of being a scientist, what characteristics come to mind? Which of these characteristics have you always had? Which have you developed or still need to develop?
34. Do you think your gender has played a role in how you are viewed? How about how you are viewed as a scientist?
35. Do you think your skin color has played a role in how you are viewed? How about how you are viewed as a scientist?
36. In what ways, if any, have your gender, race or ethnicity affected your education and experiences in science?

### Self Reflection

37. Tell me about the role models you have had in the past or currently have. How important is it to you to have role models? Is it important that your role model has had similar life experiences to you?
38. What do family and friends think and say about your work in science or your intentions to pursue a career in science?
39. Has anyone or any situation gotten in the way of your pursuing your goals?
40. What do you do to reduce stress?
41. What are some ways you are different as a result of your experiences this year?