

Diversity Supplement Step 4: Template for Research Plan and Timeline

A plan and timeline for the research and career development experiences proposed for the candidate.

- Your invitation to the applicant to join research program
- Applicant's level of training with focused interest
- Mention unique skills the applicant may possess that would enhance work in your lab/Center
- How much time will applicant spend on project? {e.g., [Applicant] is using this 2-3 year block to develop skills in basic science and learn how to think as a scientist.}
- Description of the lab/Center in which the applicant will work
- What are the skills/techniques the applicant will learn? {e.g. It is anticipated that [applicant] will learn the basic techniques required for the studies in the proposal.}
- Applicant's objectives for this project
- If applicable, mention applicant's collaboration with junior faculty members, and how this will supplement applicant's work
- Net result of this application/supplement

Sample 1

We have invited [applicant's name] to join our laboratory and add a new dimension to our research program. [Applicant] is a surgeon with a focused interest on colorectal surgery and inflammatory bowel disease. As such she possess surgical skills and clinical and pathology expertise that enhance our ability to access, process, and more carefully characterize surgical specimens. [Applicant] has more limited experience in basic laboratory research. [Applicant] is using this 2-3 year block to develop skills in basic science and learn how to think as a scientist. It is to the [Applicant's] credit that she approached us to participate in our research program as a means to provide a strong base for her future academic research career. Possessing surgical skills is a definite advantage in our laboratory where we work with surgical specimens on a daily basis. Mount Sinai performs between [insert number] surgical intestinal resections per week. Having an individual involved who understands procedures and pathology is of enormous benefit in characterizing the specimens obtained. It is anticipated that [applicant] will learn the basic techniques required for the studies in the proposal. Over the following 9 months, [Applicant] will completely immerse himself/herself in studies relating to epithelial cell antigen presentation, non-classical class I molecule expression and regulation and finally to develop the initial technology to process bacterial products from the normal bowel. Over the next year he/she will focus on the role of bacterial products on epithelial cell growth and differentiation developed to assess the role of lympho-epithelial interactions in IEC differentiation.

Sample 2

Our request for this supplement to our parent grant will enable us to hire a highly qualified minority post-doctoral fellow who is looking to transition into a junior faculty position. The post-doctoral fellowship afforded by this supplement will allow him/her to dedicate one full year to learning atomic force (AFM)/real-time confocal microscopy in the context of cardiac hypertrophy and heart failure in the

laboratory of Dr. [PI's Name]. AFM technology allows substrate micromechanics on cell fate and function and also provides new avenues for understanding mechanisms of tissue injury and myocardial hypertrophy. This type of novel technology has not been used yet in the setting of cardiac hypertrophy and failure would be very valuable as [applicant] develops his/her career in the field of cardiac hypertrophy and heart failure. The combined optical visualization and molecular specificity with confocal microscopy will be perfectly suited for these studies.

The ability to track rapid processes such as calcium transients in cardiac myocytes requires high frame rate imaging capabilities that are not possible with traditional laser scanning confocal microscopy. Being able to perform such imaging while simultaneously applying a targeted force or while measuring the transient changes in mechanical cell stiffness will be a major improvement on our current capabilities and allow a more accurate correlation between molecular events and mechanical function.

The net result of this supplement will be to create one FTE, namely [Applicant], and give him/her the opportunity to learn a new technology which will help her be competitive when applying for her first independent grant. The latter would generate further FTEs.

Timeline

- Work will commence immediately upon the grant funding
- Scope of work is possible to complete within a two year period

Reporting

- ISMMS is able to meet rigorous quarterly reporting requirements
- All job creation aspects of application will be successfully carried out