1. Description of a real world problem or opportunity this research project will address:

Pre-term labor and its associated health issues are a significant problem. When an infant is born prior to a normal full-term, nine-month pregnancy, the child is at risk for a number of health issues, both long and short term, as a result of premature birth. Any solution that could completely or even partially address this issue would be a substantial benefit to society.

According to statistics released by the American Medical Association in 2012, nearly one third of 3.9 million births in the United States were classified as pre-term (more than 3 weeks before the anticipated delivery date). Of these, 10% were over 6 weeks before the anticipated delivery date. Many of these pre-term births required various medical treatments above and beyond the treatments given to babies that had full term labors. The average cost of a neonatal ICU room in the US was $10,000 per day.

2. How would the proposed project address or help solve this problem?

Dr. Olcese and his research teams are working to explore the reasons why women go into premature labor. They have developed a link between the body’s melatonin production and the incidence of pre-term birth. They will utilize exposure of the expectant mother to light to reduce melatonin levels and decrease the number of pre-term births.

3. What intellectual property has been developed that will help address the problem? (List IP developed at FSU that are involved in the project, issued patents, patent applications, copyrights, know-how, etc.)

4. Are you aware of any technology that addresses the same problem? Is there any competition you will face?

There have been no new treatments for preterm labor over the past 35 years. The treatments that have been used over the past 40 years have not reduced the incidence of preterm birth. Present treatments include medications to reduce or slow contractions and bed rest.
5. What would the GAP funding be used for, what is the objective or outcome of the GAP project and what is the possible timeline for that effort?

The GAP funding would be used to pay for the hardware, software and research labor needed to develop a working prototype of the eye goggles that would deliver the light therapy to pregnant women. We believe it will take between 5 and 7 months to complete this set of tasks.

6. Document your understanding of current commercial entities that would have interest in your work.

There are several companies who we believe would be interested in the results of this project. These include Merck, Pfizer and Johnson and Johnson.

7. If you are awarded a GAP investment for this work and complete that effort, what would be the next step towards commercialization of the work product?

Using the results of the GAP project we will identify potential commercial partners to further develop the technology into a commercially viable product. (insert the appropriate next steps for your particular situation)