**Howard Hughes SMART Scholars Progress Report**

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| Section II. Project Information | |
| *Each research fellow should work closely with their research mentor to complete this section of the report. Please feel free to add additional pages if necessary* | |
| **Project Title: Studying the aging effect on the human bone marrow hematopoietic stem cells** | |
| **Abstract (**100 words maximum): Please provide a short description of the project including project rationale and goals, experimental approach and design, any specific information relative to the project:  In order to understand how aging influence human hematopoietic stem cells (HSC), we will compare the gene expression profiles of human HSC in young, middle-aged, and old peoples. Multiple test corrections will be applied to adjust the significance to identify differentially expressed genes that associated with age. | |
| **Project Summary** (500 word maximum) Provide a summary of progress made during the reporting period. This should include resolution of any technical or experimental design issues, preliminary results, progress made toward research objectives and future plans for continuing the work, if any. Please attach additional pages, data tables or figures as needed.  We have successfully retrieved the expression data set of GSE32719 from the NCBI GEO database. This dataset can be loaded into R statistical programming environment. We are in the process of design statistical study plan to identify differentially expressed genes.  A GitHub project repository has been created at | |
| **Section III. Application Signatures** | **Return Complete Report to:** |
| By my signature, I hereby confirm that the information is complete and an accurate representation of the work performed during the reporting period and with the support of the HHMI Research Fellowship from Spelman College.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_  Student Signature Date  By my signature, I hereby confirm my direct involvement in supervising the student named above in conducting the described research under my direction.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_ | Ms. Renée Leonard  Howard Hughes Program Coordinator  Spelman College Biology Department  Tapley Hall, Room 401  350 Spelman Lane, SW, Box 378  Atlanta, GA 30314  Phone: 404-270-5855  Fax: 404-270-5725 |
| Research Mentor Signature Date |

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| Section I. Student Information | | | | | | | | | | |
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| Student Name: | Faith Lyons | | | Report Period | |  | | | | |
| Research Mentor: |  | | | E-mail: |  | | | | | |
| Research Institution: |  | | | City: |  | | State: |  | Zip: |  |
| Bldg/Room where research will be carried out during the year: | |  | Name of Primary  Supervisor in Lab | |  | | | | | |