**2015-2016 Howard Hughes Research Associates Program 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: Evaluate the stochastic aging process of the yeast gene interaction network** | |
| **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:  Our research group recently proposed a probabilistic gene network model for cellular aging. My study is to apply this model to the yeast gene interaction network and investigate its dynamic aging process. For comparisons, random networks will be generated by permutation of the original yeast gene network, and their aging process will be evaluated to generate the null distributions of network aging. Through this study, we seek to identify the adaptive advantages of the yeast gene networks. | |
| **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.  Ms Corley has established a GitHub account, forked a programming repository for her computing project on network aging. The repository is at <https://github.com/jcorley128/mactower-network-failure-simulation>  add progress reading of research proposal, learning R programming languages, | |
| **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: | J Corley | | | 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 | |  | | | | | |