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Project Name(s): Development of a Drosophila Genetics App, FlyX

General Topic (Keywords):
Software development, genetics, model organism research, Drosophila melanogaster (fruitfly)

Project Description(s):
The Brückner laboratory at UCSF offers a summer project that combines development of a Drosophila Genetics Application (‘FlyX’) and wet lab genetics experience. Depending on the existing software developing expertise, the App could be web based, or based on IOS/Android platforms. The App is intended to propose genetic strategies and map out genetic crosses of the model organism Drosophila melanogaster (fruitfly), which will be useful for both beginners and routine users of Drosophila genetics. In this project, Brückner lab geneticists will discuss and outline the genetic markers and crossing schemes that the app should feature (punnett square principle). The student will have the opportunity to set matching genetic crosses and perform phenotypic analyses, at a level broadening the student’s research experience. Providing this Genetics App tool as a free resource will benefit the whole Drosophila community, and beyond that will be educational to students, teachers and anyone who wants to learn more about Mendelian genetics. The App may be integrated with the phenotypic Drosophila App by Genesee Scientific: https://itunes.apple.com/us/app/Drosophila/id626253408?mt=8

Desired Skills or Experience:
Expertise in software development is required (web apps and/or IOS and/or Android). No wet lab experience needed. Depending on the skills level, the Brückner lab will provide an introduction to genetics research, or enhance existing knowledge.

**Time Commitment:** 2-3 months over the summer, or as needed (part time off site ok) **Preferred**

**Starting Date:** flexible