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Faun C. C. Doherty* (fdoherty@washjeff.edu). *The ups and downs of interdisciplinary collaboration: undergraduate research experiences in math and biology.*

For colleges that are not able to support their own mathematical biology majors, concentrations, or fields of study, there is still the possibility of exposing undergraduates to valuable interdisciplinary research experiences. Motivated by interest and available funding, I ventured into two very different interdisciplinary research projects with undergraduates of Washington and Jefferson College. One (2009) was mathematical modeling using graph theory of a genetic mapping problem in the spirit of the original Human Genome Project. The other (2012) was in collaboration with a fellow faculty member who is a geneticist and her biology team. I will describe these experiences, the student's reactions, the biologist's reactions, and my observations on biology – mathematics interdisciplinary research including the challenges and rewards that are inherent in the work. (Received August 09, 2012)