Alessandra Pantano* (apantano@uci.edu), Lora D Weiss (weisslo@gvsu.edu) and Nicole Fider (nfider@math.arizona.edu). Collaborative research experiences in Mathematics and the Life Sciences for high school and college students. Preliminary report.

Supported by the NSF-Simons Center for Multiscale Cell Fate Research at UCI, MathBioU and Math ExpLR are nonresidential interdisciplinary summer programs that bring together talented college and pre-college students with UCI faculty from the Departments of Mathematics, Developmental and Cell Biology, Chemical and Biomedical Engineering, Physics and Astronomy and the UCI STEM Cell Research Center, for six intense weeks of research in mathematical biology.

A distinctive feature of this summer research program is its multigenerational nature. High school and undergraduate students work together to learn Matlab, LaTeX and mathematical modeling, and they perform high-quality research in mixed teams under faculty supervision. This collaboration leverages the unique abilities and motivation of the different age-groups and allows for cross-mentoring.

Our 3-year program evaluation has revealed very positive impact on all students involved. In this talk, we will share program results and we will discuss the challenges and successes involved in moving the program online in Summer 2020. Moreover, we will present some ideas regarding the creation of an "Intro to Research in Mathematical Biology" course that builds upon this summer program experience. (Received September 11, 2020)