**From Test Tubes to Teleconferencing: Converting a Microbiology Lab to an Online Delivery**

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In Summer 2020, I redesigned our non-majors microbiology lab for online delivery while attempting to maintain the intellectual and pedagogical integrity of a face-to-face class. Students used lab simulations from Labster, which provided a virtual-reality-like way to master key concepts and techniques. Prior to each Labster lab, they viewed my recorded lectures that set up the most important concepts and techniques within each lab. Each lecture also was delivered with embedded questions to prevent passive watching. Group quizzes and required live online class periods added in necessary discussion time. Finally, students performed a hypothesis-driven multi-day bacterial identification experiment. For four days, they were provided with a daily email with their “data” and they responded with a summary data sheet stating their results, conclusions, and requesting additional experiments. Once they identified their unknown species, they wrote a report detailing their process and explaining the importance of that species. In this manner, we were able to maintain most of our microbiology lab learning objectives while students worked from home.