

**Project Narrative:**

We will develop training modules for improving the reproducibility of experimental data recording and pre-processing in scientific research. To ensure accessibility and relevance to laboratory-based researchers, we will feature in these training modules examples from microbiology and immunology. We will create approximately 25 short training modules collected in two sequences, one focusing on reproducible approaches to recording experimental data and one on reproducible approaches to pre-processing experimental data. Each module will feature a video lecture of 5–30 minutes, and the full collection of video modules will be embedded in a free, open online book, with supplemental text and practical exercises to accompany each module. Training modules will be evaluated for researchers at a variety of training levels (undergraduates to faculty), drawing mainly from the Microbiology, Immunology, & Pathology Department of Colorado State University.