

1135-D1-1242 **Elizabeth Stanhope*** (stanhope@clark.edu). *Development of a Biological Science Quantitative Reasoning Exam (BioSQuaRE).*

National reports such as Vision and Change, Preparing Future Physicians, PCAST and BIO2010 assert that a student's quantitative preparation correlates with persistence and success in the life sciences. Unfortunately, among the students who take the ACT exam, only 43% achieve a score that indicates they have a 50% chance of earning a B or above in their first college-level math class. More disconcerting is that, of 12th grade students with high STEM interest, fully 45% have weak mathematical preparation as measured by the ACT. Here we describe the efforts of an HHMI funded Consortium to develop, pilot, and refine a 22-item instrument called the Biology Science Quantitative Reasoning Exam (Biosquare) that probes student skills with the quantitative topics deemed essential for undergraduate biology. We envision that the Biosquare will communicate to entering life science students areas of quantitative strength and weakness, provide data for faculty on what students know, and, at the programmatic level, highlight the quantitative skills biology instructors consider to be important. The Biosquare will offer empirical insight into the quantitative skills gap, informing efforts to bolster life science student success through strengthened quantitative preparation. (Received September 20, 2017)