Qingxia Li* (qli@fisk.edu), 411 Annex Ave, Apt B4, Nashville, TN, and Thomas Gross and Patricia McCarroll. Integration of Introductory Mathematics into General Biology by Reciprocal Course Content Exchange.

The overall goal of this project is to increase academic performance, prepare students to pursue education and careers in STEM, and to develop an assessment and STEM educational intervention. A recent academic experience survey revealed that the major reasons Fisk STEM majors switch to non-STEM disciplines are: (1) poor “faculty teaching” due to instructor’s failing to link concepts to applications, (2) student performance in mathematics courses, and (3) low-perceived self-efficacy. This project addresses these three issues via Intrusive Learning, achieved by creating a Learning Community. To connect math concepts with other STEM disciplines, reduce math anxiety, and increase student self-efficacy, intrusive learning communities for College Algebra and General Biology I was created, involving weekly sessions led by trained Peer Partnership Learning leaders to reinforce class content and work on mathematics projects related to Biology. A Performance Pyramid model, evaluated in collaboration with social science colleague, tested why the proposed intervention was effective and examined the extent to which each intervention reflected the influences of Performance Pyramid support systems. Data collected from both control groups and experimental groups will be discussed. (Received August 03, 2018)