Raina S. Robeva* (robeva@sbc.edu), Department of Mathematical Sciences, Sweet Briar College, 134 Chapel Road, Sweet Briar, VA 24595. Algebraic mathematical biology for undergraduate studies and research in the life sciences.

In the past few years, advances in mathematical biology have validated the power of algebraic and combinatorial methods to answer questions from a wide range of topics in modern biology related to neuroscience, molecular networks, phylogenetic, and the assembly, folding, and classification of biomolecular structures, to mention a few. Those methods however have not yet percolated down to the undergraduate level, even though many of them require only background that is fully accessible to advanced undergraduates. So what is causing the disconnect? The talk will examine this question and focus on recently published resources that could be used to bridge the existing gap. (Received September 25, 2018)