

1067-X1-1461

Padmanabhan Seshaiyer* (pseshai@gmu.edu), 4400 University Drive, MS:3F2, Mathematical Sciences, George Mason University, Fairfax, VA 22030, and **Maria Emelianenko**. *Transformative Research and Training in biological and bio-inspired systems in undergraduate mathematics*. Preliminary report.

In this work we present results from projects that evolved from a multidisciplinary undergraduate research program in mathematical modeling of biological and bio-inspired systems. This work emphasizes the importance of fostering integration of interdisciplinary research in mathematical sciences to help explain fundamental mechanisms underlying real-world biological problems, thereby enhancing the effectiveness of teaching and learning of undergraduate mathematics. Such transformative research automatically provides opportunities for undergraduate mathematics majors to perform research in areas that bridge the gap between mathematical and biological sciences. (Received September 21, 2010)