

1077-92-1946      **Samantha Monastra\*** (rhaas@smith.edu), **Pamela Clark**, **Jessica Grant** and **Ileana Streinu**. *Periodic Rigidity of Protein Crystal Structures*. Preliminary report.

Rigidity of protein structures solved by X-ray crystallography has been analyzed, until now, only for one unit cell, without taking into account the interactions between the periodic cells of a crystal. This project will investigate, through mathematical modeling, how rigidity changes when neighboring crystal cells are aggregated. (Received September 21, 2011)