

Department of Chemistry

Olga Sokolovskaya

Mentors: Marisa C. Buzzeo and John S. Magyar

Overexpression and Characterization of Cytochrome *C*
from a Psychrophilic Marine Bacterium

Elucidating how cellular processes occur at reasonable rates at decreased temperatures is essential for understanding the role of psychrophilic (cold-loving) microorganisms in biogeochemical cycles. A putative cytochrome *c552* has been identified in the genome of *Colwellia psychrerythraea*, a cold-loving bacterium isolated from Arctic sediment. The protein has been overexpressed in *E. coli*, isolated, and purified. Spectroscopic and electrochemical characterizations are in process.