RV2985 DIADENOSINE POLYPHOSPHATASE FROM *MYCOBACTERIUM TUBERCULOSIS*, AN "INVASION" ENZYME HOMOLOG AND POTENTIAL NOVEL ANTIBIOTIC TARGET. ***J. Ramos**, D. Sheibley, S.F. O'Handley*, Department of Chemistry, FoShoPedro@aol.com, sfosch@rit.edu*

The Nudix hydrolases are a family of enzymes that cleave substrates containing a nucleoside diphosphate linked to some moiety, x, and are identified by the common signature sequence: $GX_5E_7REUXEEXGU$, where U= I, L, or V. We have been systematically discovering and characterizing Nudix hydrolases from *M. tuberculosis* to identify potential novel antibiotic targets. One such enzyme, Rv2985 diadenosine polyphosphatase, is a homolog to enzymes shown to be responsible for the invasiveness of certain microorganisms. We are purifying and characterizing Rv2985 as a possible candidate for the *M. tuberculosis* "invasion" enzyme. Blocking the ability of a pathogen such as *M. tuberculosis* to be able to invade its human host may be an excellent target for the development of new antibiotics.