

SE&T Colloquium Series-Winter 2012

Speaker	Dr. Cláudio Verani Department of Chemistry Wayne State University
	Hosts: Dr. Stephanie Brouet and SVSU Chemistry Club
Title	<i>Metal complexes for inhibition of the 26S Proteasome in tumor cells</i>
Abstract	<p>An increased proteasomal activity has been identified in solid tumorous cells such as prostate cancer, therefore making the inhibition of the 26S proteasome a therapeutic venue of unprecedented relevance.</p> <p>The <i>Verani group</i> aims to understand the mechanisms underlying 26S Proteasome inhibition by transition metal complexes. The approach is based on (i) the determination of the optimal electronic and structural properties of metal ions and ligands and (ii) the evaluation of these species for proteasome inhibition and apoptosis induction through collaboration with the <i>Dou group</i> at the WSU-SOM. Selectivity towards C4-2B cancer cells has been demonstrated with gallium, copper, nickel, and zinc complexes bound to asymmetric iodo-substituted [N(py)N(am)O(phen)] ligands. Inhibition and apoptosis activities are dependent on the nature of the ligand substituents, the metal-to-ligand ratio, and the nature of the metal. Based on these results, we expect these findings to have a positive impact in the development of novel routes for cancer therapy.</p>
Date	Tuesday, January 17
Time	4:10-5:00pm
Place	Pioneer 240
	Refreshments will be served at 4:00pm.