

**Department of Molecular and Cellular Biology**  
**DISTINGUISHED SPEAKER SEMINAR SERIES****Dr. Ross N. Nazar**

Professor, Department of Molecular  
and Cellular Biology, University of Guelph

**“Termination, Quality Control  
and Biological Torpedoes”**

**Wednesday, September 21, 2011**  
**at 12:30 p.m. in THRN 1307**

The ribosome, a cell's factory for protein synthesis, is an "RNA machine" in which the synthetic events, while assisted by ribosomal protein, are RNA-dependent. Both ribosomal subunits contain large RNA molecules which make up 50% of the mass and are transcribed as a single precursor molecule from tandemly arranged nucleolar genes (rDNA). In the course of ribosome biogenesis ribosomal proteins are added while approximately half the nascent RNA is cleaved and degraded as transcribed nonconserved spacers. The primary focus of our work is the role of these spacers in ribosome biogenesis and the mechanisms which remove them during ribosome maturation. The present seminar will focus on one of the spacers, the 3'ETS, which appears to initiate ribosome maturation while terminating RNA transcription description. In vivo mutational analyses are examined with respect to both transcript termination and ribosome maturation, leading to models in which RNA structure serves to initiate both transcript termination and quality control in the RNA product.

*Host: Dr. Jane Robb*

*Coffee, Tea & Timbits available*

**EVERYONE IS WELCOME TO ATTEND!**

*“A great opportunity to hear leading researchers in the scientific community discuss their work”*