

## Biophysics Seminar - Chris Lina

Shawn Hetterly

### "Nucleon Quality Control and the RNA exosome."

- RNA exosome  $\Rightarrow$  3'  $\rightarrow$  5' processing and decay.
  - $\hookrightarrow$  decay is used by the cell to reduce errors by destroying RNA that exhibits premature stop codons.
- Eukaryotic exosome is conserved between yeast and human.
- 10 minutes in, he already has no idea what he is talking about...

#### RNA information

- ring structure made of six constituent proteins
- two catalytic sites which are mutually exclusive
- uses inorganic phosphate to cleave phosphodiester bonds, releasing nucleotide diphosphates
  - $\hookrightarrow$  applies to the phospholytic constituent enzymes
- the hydrolytic constituent enzymes hydrolyse these bonds to release nucleotide monophosphates.