



## Metallation of proteins within the secretory pathway

### Dr. Amanda Bird

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Dr. Bird uses the yeast *Schizosaccharomyces pombe* as a model system to study metal ion homeostasis in eukaryotes. Although most proteins in healthy cells obtain their correct metal cofactor, it is largely unclear how they do so. If a nascent polypeptide is provided with a mix of divalent metal cations, it will bind ions preferentially according to the Irving Williams series ( $Mn^{2+} < Fe^{2+} < Co^{2+} < Cu^{2+} > Zn^{2+}$ ). As metals at the top of this series typically form more stable protein complexes than metals at the bottom of the series, this leads to an unsolved biological problem of how all metalloproteins obtain their correct cofactor. Her lab investigates how metallo-enzymes within the secretory pathway preferentially bind to correct metal cofactors.



**Monday, December 11, 2017**

4:00 p.m.

**Auditorium/Room 108**

**BioBio Building**

Refreshments at 3:30 p.m. in the lobby.

Host: Dr. Vishal Gohil  
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—Genetics