### Discovery Science Emerging Scholars Lecture

## "Rhomboid Pseudoprotease Dfm1's Role in ERADicating Multi-Spanning Membrane Substrates"



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Nearly one-third of membrane proteins are initially targeted to the endoplasmic reticulum (ER) membrane where they are correctly folded, assembled, and then delivered to their final cellular destinations. In order to prevent the accumulation of misfolded membrane proteins, ER associated degradation (ERAD) moves these clients from the ER membrane to the cytosol; a process known as retrotranslocation. Our recent work in S. cerevisiae has revealed a derlin rhomboid pseudoprotease, Dfm1, is involved in the retrotranslocation of ubiquitinated ERAD membrane substrates. Overall, our work seeks to advance the understanding of rhomboid pseudoproteases in membrane protein quality, a highly conserved process, which is implicated in a plethora of diseases such as cancer, cystic fibrosis and neurodegenerative diseases.

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### Zoom

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