

GETTYSBURG COLLEGE SEMINAR SERIES  
CROSS-DISCIPLINARY SCIENCE INSTITUTE



*presents*

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## *“Evolution of an Ancient Protein Family”*

Ribonucleotide reductases (RNRs) are essential enzymes for all life forms on Earth, including many viruses. Because these enzymes convert the building blocks of RNA into the building blocks of DNA, a reaction that would have been important for the transition from the hypothesized RNA World to the present-day DNA/protein world the RNR family is thought to have ancient origins. RNRs are also notable for changing shape in order to regulate nucleotide pools in the cell. In this talk, I'll describe the phenomenon of protein allostery (controlling enzyme activity from a distance), what it means for the RNR family, and how allosteric and catalytic mechanisms evolved.

THURSDAY, MARCH 16, 2023 • 6:00 P.M.  
MARA AUDITORIUM, MASTERS 110

*Dinner will be provided.*

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