

The Department of Nutritional Sciences Spring 2026 Seminar Series

"Collided Ribosomes: Cellular Signaling Hubs that are Critical for GCN2 Activation"

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Wednesday, February 4, 2026 @ 2:15 PM
FSNS Building, 65 Dudley Road, New Brunswick, Room 120
Zoom option: <https://go.rutgers.edu/tracy-keller-seminar>



GCN2 is a key signaling component of a cellular stress response that is activated when amino acid levels fall below the level required to maintain uninterrupted protein synthesis. Activation of this early warning system produces a cellular adaptive response, and also is linked to a broad range of physiological benefits that include immune regulation, wound healing, cell survival and lifespan extension. Our lab has reconstituted the regulated activation of GCN2 using a mammalian cell-free translation system. Using this system, we show that collided ribosomes are physically recognized by the GCN1/GCN2 activation complex and are required to initiate GCN2 signaling.