

263rd WPI-IIIS Seminar

How Social Life Shapes Health and Longevity in Ants

In social species, behavior, physiology, and even lifespan are strongly influenced by the social environment. We use ants, highly organized eusocial insects, as a model to investigate how social conditions shape individual health and longevity and to uncover the underlying molecular and physiological mechanisms. Social isolation markedly shortens lifespan in ants, with increased oxidative stress in the fat body, the major metabolic organ of insects. I will also present our recent work on how beneficial social interactions promote health and longevity and discuss how social communication is linked to physiological changes at the molecular and cellular levels.



Dr. Akiko Koto

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Date: **Wednesday, September 9, 2026**

Time: **13:30 – 14:30**

Venue: **1F Auditorium, IIIS Building**

*** On-site participation only**



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