

IMEG Seminar Series

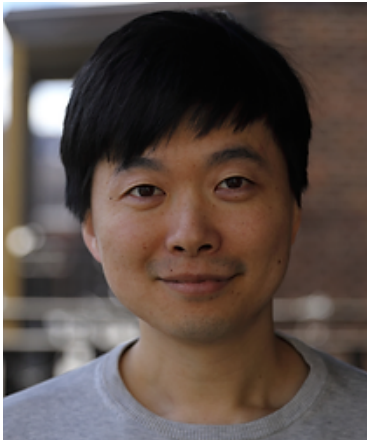
The road to global science

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January 19th, 2024, 17:00-18:00

Mechanics of Tissue Morphogenesis in the Chicken Embryo



This seminar series is open to all students and researchers in Kumamoto University.
The Zoom ID and passcode were sent via email. Check your inbox!

Developing embryos rely on tissue forces and rheological properties to achieve proper shapes. These mechanical factors have been challenging to measure and to control directly, given their small magnitude in the small-scale tissues. Our group combine the large and accessible avian embryos and modern mechanical tools to address this challenge. I will describe two examples of our findings: first, how the brain and the spinal cord diverge their shape and volume after neural tube closure, where we found the cooperativity between lumen pressure and patterned tissue deformability; second, how the elongating body axis stays straight, where we identify a resisting force against axis curvature from the paraxial mesoderm under FGF signalling mediated tissue expansion. I will also briefly introduce some of the questions and tools we currently work on.