

Intercellular localization of immaturin in the early phase of immaturity detected by anti-immaturin antibody in both wild-type and early mature mutants of *Paramecium*
Part II

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SUMMARY

Immaturin is a cytoplasmic polypeptide that regulates the expression of sexual activity in the life cycle of *Paramecium*. At the previous meeting, we reported the discovery of green bodies (GB) in the macronucleus of early mature mutant cells at the early stage of immaturity by an indirect immunofluorescence method using the anti-immaturin antibody. In this study, to establish an experimental system that enables us to evaluate the quantitative localization of immaturin molecules in both immature and mature cells, we compared the intensity of fluorescent signals among wild-type (WT) cells and the early mature mutants (EM) statistically. The analyses revealed several new findings: 1) no significant difference was found between the fluorescent intensity of cytoplasmic immaturin and GB in the macronucleus, 2) the intensity of fluorescent signals in immature cells is higher than that in mature cells in both WT and EM. We infer that a causal relation between a dynamic change of immaturin localization and sexual maturation must be a central subject in the next step.