

## A classification and functions of *Tetrahymena thermophila* myosins

Maki SUGITA, Yoshinori IWATAKI, Kentaro NAKANO, Osamu NUMATA

(Graduate school of Life and Environmental Sciences, University of Tsukuba)

It is considered that actin and type-II myosin work together in assembly of the contractile ring during cytokinesis. Thirteen genes encoding myosin have been found in *T. thermophila*. However, type-II myosin is absent in this organism. We searched the functional domain in the tail regions of *Tetrahymena* myosins. They were finally classified into four groups which had FERM (lipid-binding), ATS1 (control of microtubules), Smc (dimeric coiled-coil structure), and other functions. To identify myosins involved in cytokinesis, we are analyzing the cellular distributions of Myo13 and Myo6, as both these myosins form dimers and could possibly function in cytokinesis instead of type-II myosin.