

Timing of appearance of a novel macronuclear nucleoli-specific antigen in nuclear differentiation of  
*Paramecium caudatum*

Kenya TANAKA<sup>1</sup>, Hideo DOHRA<sup>2</sup>, Masahiro FUJISHIMA<sup>1</sup> (<sup>1</sup>Dep. of Env. Sci. and Eng, Grad. Sch. of Sci and Eng, Yamaguchi Univ., <sup>2</sup>Inst. of Genet. Res. and Biothech., Shizuoka Univ.)

We obtained a monoclonal antibody specific for a novel macronuclear nucleolus protein of the ciliate *Paramecium caudatum*. Immunoblotting with this antibody shows that the antigen is 52 kDa in molecular weight. Indirect immunofluorescence microscopy shows that the antigen appears in the macronuclear anlagen immediately after four out of eight postzygotic nuclei differentiate morphologically into the anlagen, and that the antigens remain in the macronucleus and in the old macronuclear fragments till the second cell cycle of the exconjugants. Cross-reactivity of the antibody shows that the epitopes are present not only in *P. caudatum*, but also in *P. jenningsi*, *P. multimicronucleatum*, *P. trichium*, *P. bursaria*, *P. calkinsi* and *P. polycaryum*.