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Study of animal viruses in yeast

Yuko MORIKAWA

Kitasato University

Shirokane 5-9-1, Minato-ku, Tokyo 108-8641

(E-mail: morikawa@lisci.kitasato-u.ac.jp)

Yeast is often considered to be a model eukaryotic organism, in a manner analogous to *E. coli* as a model prokaryotic organism. Yeast has been extensively characterized and the genomes completely sequenced. Despite the small genome size, yeast displays most of features of higher eukaryotes. The facts that most of cellular machinery is conserved among different eukaryotes and that the powerful technologies of genetics and molecular biology are available have made yeast model eukaryotic cells in biological and biomedical sciences including virology. Cumulative data indicate that yeast can be a host for animal viruses. I briefly describe yeast gene expression and review viral replication in yeast. Great discovery include complete replication of animal viruses and production of virus-like particle vaccines in yeast. Current studies on yeast focus on identification of host factors and machinery used for viral replication. The studies are based on traditional yeast genetics and genome-wide identification using a complete set of yeast deletion strains.