



Kazuhiro FURUKAWA, Ph.D.

Associate Professor

Program: Fundamental Sciences

Area: Chemistry

Undergraduate: Dept. of Science

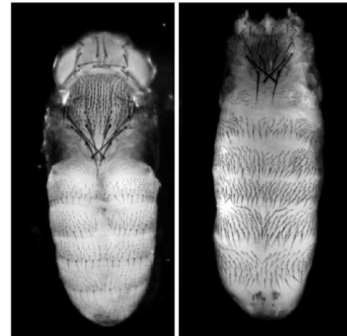
<http://chem.sc.niigata-u.ac.jp/~furukawa/>

Professional Expertise

Molecular cell nuclear biology for regulation of cell function and development.

Molecular function and structural dynamics of nuclear lamina.

Molecular genetical analyses of human diseases; Nuclear Envelopthies with model animal, *Drosophila*.



Research Fields of Interest

Molecular and cellular Biology.

Biological chemistry.

Molecular genetics.

Education

1990/May -2000/July

Division of Biological Science, Graduate School of Science, Nagoya University, Japan, Sr. Res. Associate (Specific field, Cell and Molecular biology)

1993/April-1995/March

Department of Cell and Molecular Biology, The Scripps Res. Institute, USA, Sr. Res. Associate (concurrent with Nagoya University)(Specific field, Cell and Molecular biology)

1990/March -1990/April

Division of Biology, Aichi Cancer Center research institute, Japan, Res. Fellow, (Specific field, Cell biology)

1986/April-1990/March

Division of Pathology, Graduate School of Medicine, Kyoto University, Japan, Degree of Med.Sci. (Specific field, Viral Oncology)

1983/April-1985/March

Division of Biology, Graduate School of Science, Shizuoka University, Japan, Degree of M.S. (Specific field, Physiological Chemistry)

1979/April-1983/March

Department of Biology, Faculty of Science, Shizuoka University, Japan, Degree of B.S. (Specific field, Physiological Chemistry)

Professional Societies and Activities

1. The Molecular Biology Society of Japan
2. The Japanese Biochemical Society
3. The American Society for Cell Biology

Major Publications

Papers

- [1] Segawa,M., Niino,K., Mineki,R., Kaga,N., Murayama.K., SugimotoK., Watanabe,Y., **Furukawa,K.**, Horigome,T., Proteome analysis of rat liver nuclear insoluble protein fraction and localization of a novel protein, ICP36, to the interchromatin compartment FEBS J. 272, 4327-4338, 2005.
- [2] Osou da,S., Nakamura,Y., de Saint Phalle,B. McConnell,B., Horigome,T., Sugiyama,S., Fisher,P.A., and **Furukawa,K.**, Null mutants of *Drosophila* B-type lamin Dm0 show aberrant tissue differentiation rather than obvious nuclear shape distortion or specific defects during cell proliferation. Dev. Biol. 284, 219-232, 2005.
- [3] Hirano,Y., Segawaa,M., Honmaa,S., Ouchib,F.S., Yamakawab,Y., Takeyasu,K., **Furukawaa,K.**, and Horigomea,T., Dissociation of emerin from barrier-to-autointegration factor is regulated by mitotic phosphorylation of emerin in *Xenopus* egg cell-free system. J. Biol. Chem. 280, 39925-39933, 2005.
- [4] Ito,H., Koyama,Y., Takano,M., Ishii,K., Maeno,M., **Furukawa,K.**, and Horigome,T., Nuclear envelope precursor vesicle targeting to chromatin is stimulated by protein phosphatase 1 in *Xenopus* egg extracts. Exp. Cell Res. 313, 1897-1910, 2007.
- [5] **Furukawa,K.** , Aida,T., Nonaka,Y., Osouda,S., Juarez,C., , Horigome,T., Sugiyama,S., BAF as a Caspase-Dependent Mediator of Nuclear Apoptosis in *Drosophila*. J. Struct. Biol. 160, 125-134, 2007.
- [6] Ishii,K., Araki,N., Hirano,Y., Takeyasu,K., **Furukawa,K.**, and Horigome,T., Nuclear matrix containing novelWD-repeat proteins and disordered region-rich proteins. FEBS Lett. 562, 3515-3519, 2008
- [7] Hirano,Y., Ishii,K., Kumeta,M., **Furukawa,K.**, Takeyasu,K., and Horigome,T., Proteomic and targeted analytical identification of BXDC1 and EBNA1BP2 as dynamic scaffold proteins in the nucleolus. Genes to Cell, 14, 155-166, 2009
- [8] **Furukawa,K.**, Ishida,K., Tunoyama,T.K., Toda,S., Osouda,S., Fisher,P.A., Horigome,T., Sugiyama,S., A-type and B-type lamins initiate layer assembly at distinct areas of the nuclear envelope in living cells. Exp. Cell Res. 315 : 1181–10189, 2009.