Medical Biochemistry

1. Staffs and Students (April, 2009)

Professor	Yutaka Hata
Assistant Professor	Kentaro Nakagawa
Assistant Professor	Mitsunobu Ikeda
	Other two staffs and six students

2. Purpose of Education

1) Undergraduate

We organize two courses: "Molecular Biology and Human Genetics" and "Medical Biochemistry". The students are requested through these courses to obtain a comprehensive integrated knowledge of human molecular genetics and biochemistry, which is important to understand how health is maintained and which molecular and biochemical events cause human diseases and underlie the rational treatments.

2) Graduate and others

We are studying the cell adhesion-related signaling pathway which is involved in the regulation of cell proliferation, cell polarity, and apoptosis. This pathway is well conserved from fly to human. The mutations of some components lead to oncogenesis and organ malformation. Several recent studies suggest that this pathway is implicated in inflammation and cell differentiation such as adipogenesis, osteogenesis, and keratinocyte differentiation. The pathway plays an important role in various human diseases and could be a new therapeutic target. We give lectures about our current studies to graduate students and others, and provide graduate students with the opportunity to participate in them.

3. Research Subjects

1) Study on RASSF proteins
2) Study on mammalian Hippo signaling
3) Study of nuclear Dbf2-related kinases

4. Clinical Services

N/A

5. Publications

Original Articles

1. Roles of mammalian sterile 20-like kinase 2-dependent phosphorylations of Mps one binder 1B in the activation of nuclear Dbf2-related kinases. Bao Y, Sumita K, Kudo T, Withanage K, Nakagawa K, Ikeda M, Ohno K, Wang Y, Hata Y. Genes Cells. 2009 Dec;14(12):1369-81.
2. Hippo pathway-dependent and -independent roles of RASSF6. Ikeda M, Kawata A, Nishikawa M, Tateishi Y, Yamaguchi M, Nakagawa K, Hirabayashi S, Bao Y, Hidaka S, Hirata Y, Hata Y. Sci Signal. 2009 Sep 29;2(90):ra59.