Masaki Yanagishita

1. Topic in Research Achievements in the Year 2006

During the years of 2006 and 2007, we tried to focus on the demonstration of the presence of a molecular complex on the cell surface involving heparan sulfate proteoglycans. Biochemical properties of heparan sulfate proteoglycans point to the presence of intimate molecular interactions in specialized domains of cell surface and their importance in the cellular signaling mechanisms. Research results, using isolation procedures of plasma membrane and identification of several membrane proteins together with heparan sulfate proteoglycans, indicated that cholesterol-rich, cell surface microdomains constitute one of specialized functional units of the plasma membrane and are associated with a species of cell surface heparan sulfate proteoglycan, syndecan-4. Biological significance of heparan sulfate proteoglycans in specialized membrane domains will be further investigated.

2. Publications in the year 2006


Praweena Sopapornamorn, Masayuki Ueno, Kayoko Shinada, Masaki Yanagishita and Yoko Kawaguchi, Relationship between total salivary protein content and VSC levels in malodor patients, Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology and Endodontology (2007) in press


3. Abstracts in the year 2006

Katarzyna A. Podyma-Inoue, Miki Yokoyama, Tomoko Kimura and Masaki Yanagishita, Syndecan-4 is a major heparan sulfate proteoglycan in detergent-resistant membrane isolated from a parathyroid cell line, in "Extracellular Glycomatrix in Health and Disease" June 15-17, 2006, Awaji Island, Japan