

## Abstract of Presentation

### **Predictive biomarker for molecular target drugs – proteomic and glycobiological approach**

#### Abstract :

In the post-genomic era, great progress in research of cancer biology enables us to conduct of extensive biomarker research. Coincidentally, application of new proteomic and glycomics technologies to biomarker research yields discovery of molecular target drugs. Since proposal of Critical Path Initiative by FDA, it seems to be essential to utilize the biomarkers in drug discovery process. We have done some biomarker studies that identify the high risk group of adverse events induced by molecular target drugs using proteomics: biomarkers to predict the lung injury induced by tyrosine kinase inhibitors and other molecular target drugs in the clinical setting.

Another important approach is to identify the markers that predict the responders to molecular target drugs. We have tried to identify the novel glyco-markers to predict the responder to anti-Her2 antibody by comprehensive glycoprofilng. This approach allowed us to develop a new diagnostic blood test for pancreas cancer patients. At the same time, glycoprofilng of target proteins is attractive. In this symposium, we will discuss concrete proteomic and glycobilogic technologies and clinical goals with drug development process.