

Functional Genomics Approach to the Study of Biological Systems

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In the post-genome era, functional genomics technology platforms, such as DNA microarray for gene expression profiling and 2-dimensional gel electrophoresis coupled mass spectrometry for proteomics study, have allowed us to study the biological systems at all levels in a holistic manner. This presentation represents a summary of our recent study in applying the functional genomics approach to the study of Chinese medicine, with special reference to the action of ginseng on angiogenesis - formation of new blood vessels. I would illustrate the approach that we took from the observation of a biological phenomenon to the identification of the molecular targets and its signaling pathway. Also, the proteomics approach to the study of neurite formation will be presented.