Molecular Epidemiology

1. Staffs and Students (April, 2010)

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2. Education

Many common diseases such as diabetes, hypertension, obesity, metabolic syndrome, and atherosclerosis are caused by multiple genetic and environmental factors. We aim to decipher these factors as well as their interactions by applying the technology and information of human genome to epidemiology. Our goal is not only to identify disease genes and polymorphisms but also to elucidate gene-environment interactions that contribute to the onset and progression of the diseases. New projects to study the role of epigenetic changes in common diseases have also started.

3. Research Subjects

1. Gene-environment interaction that affects the onset of metabolic syndrome and its related phenotypes.
2. Genetic factors that affect the severity of pathological atherosclerosis.
3. Responder vs non-responder of prodrugs and polymorphisms of drug metabolizing enzymes.
4. Severe cutaneous adverse response (Stevens-Jhonson’ s Syndrome) and HLA genotypes.
5. The role of epigenetic regulation and fetal programming in common diseases.

4. Publications

