

SY-II-3**TRANSLATIONAL RESEARCH USING ABC TRANSPORTERS**Cheol-Hee Choi*Department of Pharmacology, Research Center for Resistant Cells, Chosun University Medical School, Gwangju 501-759, Korea*

Needs of bi-directional dialogue between basic scientists and clinical researchers to improve human health gave birth to translational research to translate the basic understandings and scientific discoveries into the clinical level. Membrane bound ATP-binding cassette (ABC) transporters such as P-glycoprotein are responsible for effluxing endogenous and exogenous substances in intestines, blood brain barrier and placenta. They are involved in drug resistance and reduced bioavailability upon oral intake in the clinic, which can be overcome by inhibitors of these transporters. The present studies focus on diagnosis of drug resistance using the PCR methods and on the role of flavonoids as chemosensitizers or bioavailability enhancers. These results will be translated through preclinical in vivo studies into the development of novel clinical protocols for diagnosis and treatment of patients.

Key Words: Translational research, ABC transporters, P-glycoprotein, Drug resistance, Bioavailability