

Pharmacology



◆ Overview

Pharmacotherapy occupies an essential part of medicine, where transporters have been established as a key drug target molecule in various diseases, such as hypertension, hyperuricemia, diabetes, depression, and cancers. In order to seek a new opportunity toward innovative drug development, we are working on a variety of research aiming at clarification of physiological as well as pathophysiological roles of transporters expressed in various tissues. In addition, we also conduct a research to clarify the regulatory mechanisms of intercellular signaling through nitric oxide (NO) in relation to functional alternation in physiology and pathophysiology with use of biochemical and molecular biological techniques.

Professor : Naohiko Anzai, M.D., Ph.D.

TEL : +81-43-226-2050

FAX : +81-43-226-2052

e-mail : anzai@chiba-u.jp

URL :

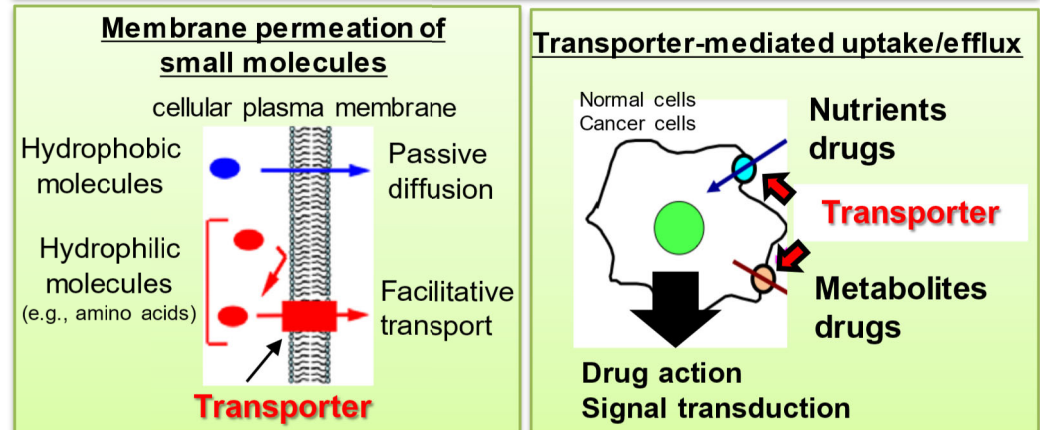
<http://www.m.chibau.ac.jp/class/pharmacology/pharmacology/Welcome.html>



◆ Research & Education

1. Characterization of clinico-pathological and pharmacological roles of transporters, including L-type amino acid transporters, in various tissues and cancers.
2. Development of new anti-cancer agents/strategy targeting to cancer-associated transporter gene products and their functions.
3. Development of new non-invasive diagnostic methods for determination of serum metabolites, which are substrates of transporters.
4. Regulatory roles of nitric oxide (NO) in cellular signaling through S-nitrosylation.
5. Mechanisms of inter-cellular signaling by NO.

Transporters play important roles in determination of pharmacological effects of various drugs



◆ Recent Publications

- Hayashi K, Jutabha P, Endou H, Sagara H, Anzai N. LAT1 is a critical transporter of essential amino acids for immune reactions in activated human T cells. *J Immunol.* 2013; 191: 4080-5.
- Anzai N, Endou H. Urate transporters: an evolving field. *Semin Nephrol.* 2011; 31(5): 400-9.