



Laboratory of Drug Discovery



Prof. Yong-Chul Kim

E-mail: yongchul@gist.ac.kr

Tel.: +82-62-715-2502

Web: <http://life.gist.ac.kr/ddl/>

Education:

1983-1987: B.S. in School of Pharmacy, Seoul National University

1987-1989: M.S. in B.S. in School of Pharmacy, Seoul National University

1989-1995: Ph.D. in B.S. in School of Pharmacy, Seoul National University

Experience:

2017~present: Dean, Office of International and Public Affairs, GIST

2001~present: Assistant – Full Professor, Gwang-ju Institute of Science & Technology (GIST)

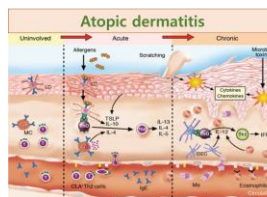
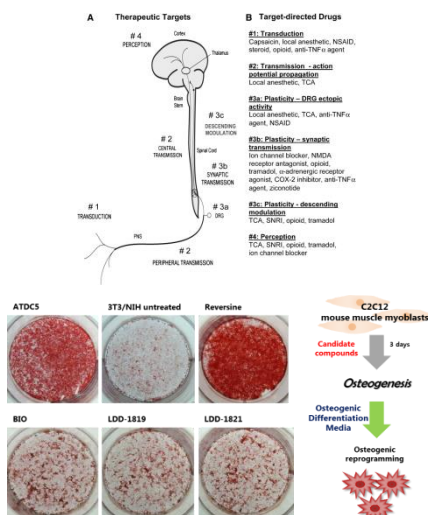
2011~2015: Dean, School of Life Sciences, GIST

2000~2001: Research Scientist, Univ. Alabama and ChemBridge, Inc. in USA

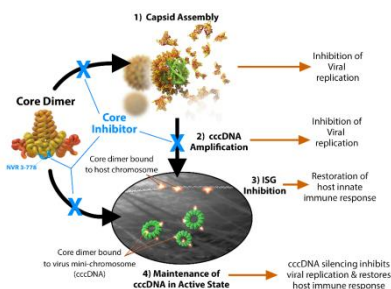
1995~2000: Post-doc., National Institutes of Health (Dr. Kenneth A. Jacobson), USA



Research Topics



Abnormal skin barrier
↓
Epicutaneous absorption of environmental allergens
↓
Systemic sensitization
↓
Development of food allergy and asthma



1. Anti-nociceptive, anti-inflammatory and anti-metastatic agents targeting P2X_{3,7} purinergic receptors
2. Development of multi targeted functional compounds for treatment of neuropathic pain
3. Innovative therapeutic agents for metabolic diseases targeting GPCRs
4. Anti-cancer agents for resistant cancers targeting kinases (CDK, FLT3, PLK-1 and JAK)
5. New therapies for atopic dermatitis, sepsis and autoimmune diseases
6. Development of novel mechanism-based chemical agents for direct cell reprogramming and cell therapies
7. New therapies for hepatitis B virus based on capsid assembly inhibitors

Selected Publications

- "[Potent Suppressive Effects of 1-Piperidinylimidazole Based Novel P2X₇ Receptor Antagonists on Cancer Cell Migration and Invasion](#)" *J. Med. Chem.* 59(16), 7410-7430 (2016).
- "[Discovery of Novel 2,5-Dioxoimidazolidine-Based P2X₇ Receptor Antagonists as Constrained Analogues of KN62](#)" *J. Med. Chem.* 58(5), 2114-2134 (2015).
- "[Structure-activity relationships and optimization of 3,5-dichloropyridine derivatives as novel P2X₇ receptor antagonists](#)" *J. Med. Chem.* 55(8), 3687-3698 (2012).
- "[5,5'-Substituted Indirubin-3'-oxime Derivatives as Potent Cyclin-Dependent Kinase Inhibitors with Anticancer Activity](#)" *J. Med. Chem.* 53(9), 3696-3706 (2010).
- "[Structure-Activity Relationship Studies of Spinorphin as a Potent and Selective Human P2X₃ Receptor Antagonist](#)" *J. Med. Chem.* 50(18), 4543-4547 (2007).

PUBMED AUTHOR INFORMATION

<https://www.ncbi.nlm.nih.gov/pubmed/?term=yong-chul+kim>