

CURRICULUM VITAE

Kyeong-Ryoon Lee, Ph.D.

Research Scientist, Drug Metabolism and Pharmacokinetics Lab.

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CONTACT INFORMATION

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EDUACTION

Mar. 2004 – Aug. 2011

Ph.D., College of Pharmacy, Seoul National University, Seoul, Korea (Advisor: Prof. Suk-Jae Chung)

Thesis: Neuropharmacokinetic Analysis and Delivery Strategy for Drugs Targeted to the Central Nervous System

Mar. 1997 – Feb. 2004

B.S. in Chemical Engineering, Chungnam National University, Daejeon, Korea

WORKING EXPERIENCES

Nov. 2017 – present

Research Scientist, Drug Metabolism and Pharmacokinetics Lab.,

Korea Research Institute of Bioscience and Biotechnology (KRIBB), Ochang, Korea

Mar. 2017 – present

Adjunct Professor, College of Pharmacy, Chungnam National University, Daejeon, Korea

Apr. 2015 – present

Visiting Scientist, Sugiyama Special Laboratory, RIKEN, Yokohama, Japan

Advisor: Dr. Yuichi Sugiyama (April 2015 - April 2016, dispatched from Daewoong)

Sep. 2013 – Nov. 2017

Principal Research Scientist, New Drug Development Lab.,

Life Science Research Institute, Daewoong Pharmaceutical, Co., Ltd., Gyeonggi-do, Korea

Sep. 2012 – Aug. 2013

Postdoctoral Fellow, Department of Pharmaceutics, Ernest-Mario School of Pharmacy,

Rutgers, the State University of New Jersey, New Jersey, USA

Advisor: Prof. An-Ng Tony Kong

Jul. 2011 – Sep. 2012

Postdoctoral Fellow, Drug Discovery Platform Technology Team

Korea Research Institute of Chemical Technology, Daejeon, Korea

AWARDS AND HONORS

Jun. 2013

Korean American Society in Biotech and Pharmaceuticals (KASBP)-Hanmi Fellowship Winner, Edison, New Jersey, USA

Aug. 2010

The Best Paper Award for Publishing the Most Number of Research Papers, College of Pharmacy, Seoul National University, Korea

Oct. 2009 The Asian Federation for Pharmaceutical Sciences (AFPS) Pre-doctoral Poster Presentation Award, Fukuoka, Japan

PROFESSIONAL ORGANIZATIONS

Mar. 2017 – present KSNS (The Korean Society of Nonclinical Study), Research fellow

Jan. 2017 – Present PAGK (Population Approach Group in Korea), Committee member

KEYWORDS/AREAS OF INTEREST

drug metabolism and pharmacokinetics; biopharmaceutics; pharmacokinetic-pharmacodynamic modeling and simulation; physiologically based pharmacokinetics; in vitro-in vivo extrapolation; drug-drug interaction; transporters; data sciences, model-based translational research

PEER REVIEWED PUBLICATIONS (newest first)

1. Jun-Hyeng Son, Yoo-Seong Jeong, Jong-Hwa Lee, Min-Soo Kim, Kyeong-Ryoon Lee, Chang-Koo Shim, Young Ho Kim, Suk-Jae Chung, Identification of metabolites of MDR-1339, an inhibitor of β -amyloid protein aggregation, and kinetic characterization of the major metabolites in rats, *Journal of Pharmaceutical and Biomedical Analysis*, 151(20), 2018
2. Seiji Miyauchi, Masayuki Masuda, Soo-Jin Kim, Yuudai Tanaka, Kyeong-Ryoon Lee, Shouko Iwakado, Momoko Nemoto, Shotaro Sasaki, Kazumi Shimono, Yoshio Tanaka, Yuichi Sugiyama, The phenomenon of "albumin-mediated" hepatic uptake of organic anion transport polypeptide substrates: Prediction of the in vivo uptake clearance from the in vitro uptake by isolated hepatocytes using a "facilitated-dissociation" model, *Drug Metabolism and Disposition*, 2018
3. Kyeong-Ryoon Lee, Jong-Woo Jeong, Hun-Chan Hyun, Eunseo Jang, Sunjoo Ahn, Sungwook Choi, Sang Hoon Joo, Sungsub Kim, Tae-Sung Koo, Pharmacokinetics of tafamidis, a transthyretin amyloidosis drug, in rats, *Xenobiotica*, 2017 **(First author)**
4. Seong Soon Kim, So Hee Im, Jung Yoon Yang, Yu-i Lee, Geum Ran Kim, Jin Sil Chae, Dae-Seop Shin, Jin Sook Song, Sunjoo Ahn, Byung Hoi Lee, Jae Chun Woo, Jin Hee Ahn, Chang Soo Yun, Phiho Kim, Hyoung Rae Kim, Kyeong-Ryoon Lee, Myung Ae Bae, Zebrafish as a Screening Model for Testing the Permeability of Blood–Brain Barrier to Small Molecules, *Zebrafish*, 2017 **(Co-corresponding author)**
5. Yoon-Jee Chae, Kyeong-Ryoon Lee, Jong-Hwa Lee, Woojin Lee, Dae-Duk Kim, Suk-Jae Chung, Han-Joo Maeng, Feasibility of the functional expression of the human organic anion transporting polypeptide 1B1 (OATP1B1) and its genetic variant 521T/C in the mouse liver, *European Journal of Pharmaceutical Sciences*, 96, 28-36, 2017
6. Chang-Soon Yim, Yoo-Seong Jeong, Song-Yi Lee, Wonji Pyeon, Heon-Min Ryu, Jong-Hwa Lee, Kyeong-Ryoon Lee, Han-Joo Maeng, Suk-Jae Chung, Specific Inhibition of the Distribution of Lobeglitazone to the Liver by Atorvastatin in Rats: Evidence for an rOATP1B2-Mediated Interaction in Hepatic Transport, *Drug Metabolism and Disposition*, 45(3), 2017
7. Tae-Heon Kim, Jong-Woo Jeong, Ji-Hye Song, Kyeong-Ryoon Lee, Sunjoo Ahn, Sung-Hoon Ahn, Sungsub Kim, Tae-Sung Koo, Pharmacokinetics of enzalutamide, an anti-prostate cancer drug, in rats, *Archives of Pharmacal Research*, 38(11), 2076-2082, 2015
8. Ju-Hee Lee, Kyung Hee Jung, Hyunseung Lee, Mi Kwon Son, Sun-Mi Yun, Sung-Hoon Ahn, Kyeong-Ryoon Lee,

- Soyoung Lee, Donghee Kim, Sungwoo Hong, Soon-Sun Hong, HS-133, a novel fluorescent phosphatidylinositol 3-kinase inhibitor as a potential imaging and anticancer agent for targeted therapy, *Oncotarget*, 5(20), 10180-10197, 2014
9. Jong Hun Lee, **Kyeong-Ryoon Lee**, Zheng-Yuan Su, Sarandeep S-S Boyanapalli, Dipti Narayan Barman, Mou-Tuan Huang, Lin Chen, Magesh Sadagopan, Longqin Hu, Ah-Ng Kong, In vitro and in vivo anti-inflammatory effects of a novel 4, 6-bis ((E)-4-hydroxy-3-methoxystyryl)-1-phenethylpyrimidine-2 (1H)-thione, *Chemical research in toxicology*, 27(1), 34-41, 2014
10. **Kyeong-Ryoon Lee**, Sung Heum Choi, Jin-Sook Song, Hyewon Seo, Yoon-Jee Chae, Hwang Eui Cho, Jan Hee Ahn, Sung-Hoon Ahn, and Myung Ae Bae, Determination of PF-04620110, a novel inhibitor of diacylglycerol acyltransferase-1, in rat plasma by using liquid chromatography-tandem mass spectrometry and its application in pharmacokinetic studies, *Biomedical Chromatography*, 27(7), 846-852, 2013 **(First author)**
11. Myoung Joo Park, **Kyeong-Ryoon Lee**, Dae-Seop Shin, Hang-Suk Chun, Cheo-Hee Kim, Sung-Hoon Ahn, and Myung Ae Bae, Predicted drug-induced bradycardia related cardio toxicity using a zebrafish in vivo model is highly correlated with results from in vitro tests, *Toxicology Letters*, 216(1), 9-15, 2013
12. **Kyeong-Ryoon Lee**, Jin Sook Song, Yoon-Jee Chae, Min-Sun Kim, Sung-Heum Choi, Dong Ju Jeon, Myung Ae Bae, and Sung-Hoon ahn, Determination of 2-aryl-7(3',4'-dialkoxyphenyl)-pyrazolo [1,5- α] pyrimidine, a novel phosphodiesterase-4 inhibitor, in rat plasma by liquid chromatography-tandem mass spectrometry, *Journal of Chromatographic Science*, 51(6), 517-523. 2013 **(First author)**
13. **Kyeong-Ryoon Lee**, Sung Heum Choi, Jin-Sook Song, Eun-Young Kwak, Yoon-Jee Chae, So Hee Im, Byung Hoi Lee, Hyewon Seo, Woon-Ki Cho, Min-Sun Kim, Nak Jeong Kim, Sung-Hoon Ahn, and Myung Ae Bae, Pharmacokinetic characterization of the novel TAZ modulator TM-25659 using a multicompartment kinetic model in rats and a possibility of its drug-drug interactions in humans, *Xenobiotica*, 43, 193-200, 2013 **(First author)**
14. Yoon-Jee Chae, Tae-Sung Koo, and **Kyeong-Ryoon Lee**, A sensitive and selective LC-MS method for the determination of lurasidone in rat plasma, bile, and urine, *Chromatographia*, 75(19), 1117-1128, 2012 **(Corresponding author)**
15. Jong-Hwa Lee, Yoon-Jee Chae, **Kyeong-Ryoon Lee**, Sung-Hoon Ahn, Joung-Wook Seo, Qing-Ri Jin, Young-Ah Woo, Gye-Won Lee, Soon-Chang Cho, Sung-Won Kwon, and Dae-Hun Park, Development of a LC-MS method for quantification of FK-3000 and its application to in vivo pharmacokinetic study in drug development, *Journal of Pharmaceutical and Biomedical Analysis*, 70, 587-591, 2012
16. Sung Heum Choi, **Kyeong-Ryoon Lee**, Jae-Chun Woo, Nak Jeong Kim, Dong Cheul Moon, Eun Sook Hwang, Sung-Hoon Ahn, Myung Ae Bae, Min-Sun Kim, Determination of a novel TAZ modulator, 2-butyl-5-methyl-6-(pyridine-3-yl)-3-[2'-(1H-tetrazole-5-yl)-biphenyl-4-ylmethyl]-3H imidazo[4,5-b]pyridine] (TM-25659) in rat plasma by liquid chromatography-tandem mass spectrometry, *Journal of Pharmaceutical and Biomedical Analysis*, 63, 47-52, 2012
17. Yoon-Jee Chae, **Kyeong-Ryoon Lee**, Chi-Kyung Noh, Saeho Chong, Dae-Duk Kim, Chang-Koo Shim, and Suk-Jae Chung, Functional consequences of genetic variations in the human organic anion transporting polypeptide 1B3 (OATP1B3) in the Korean population, *Journal of Pharmaceutical Sciences*, 101(3), 1302-1313, 2012
18. **Kyeong-Ryoon Lee**, Yoon-Jee Chae, Jong-Hwa Lee, Dae-Duk Kim, Saeho Chong, Chang-Koo Shim, and Suk-Jae Chung, Quantification of cilnidipine in human plasma by liquid chromatography-mass spectrometry, *Journal*

- of Liquid Chromatography & Related Technologies, 35(2), 308-320, 2012 **(First author)**
19. Jin Sook Song, Kyeong-Ryoon Lee, Hyun Jin Kwon, Sang Dal Rhee, Min Sun Kim, Sung Hum Choi, Sung-Hack Lee, Im Sook Song, Jin Hee Ahn, Sung Hoon Ahn, and Myung Ae Bae, Pharmacokinetics and pharmacodynamics of KR-66223, a novel DPP-4 inhibitor, Drug Metabolism and Pharmacokinetics, 27(2), 216-222, 2012
 20. Kyeong-Ryoon Lee, Yoon-Jee Chae, Han-Joo Maeng, Jeewoo Lee, Dae-Duk Kim, Saeho Chong, Chang-Koo Shim, and Suk-Jae Chung, Physiologically based pharmacokinetic modeling of SNU-0039, an anti-Alzheimer's agent, in rats, Journal of Pharmacokinetics and Pharmacodynamics, 38(5), 637-651, 2011 **(First author)**
 21. Kyeong-Ryoon Lee, Yoon-Jee Chae, and Tae-Sung Koo, Pharmacokinetics of lurasidone, a novel atypical anti-psychotic drug, in rats, Xenobiotica, 41(12), 1100-1107, 2011 **(First author)**
 22. Jin Sook Song, Jung-Woo Chae, Kyeong-Ryoon Lee, Byung Hoi Lee, Eun Jeong Choi, Sung Hoon Ahn, Kwang-il Kwon, and Myung Ae Bae, Pharmacokinetic characterization of decursinol derived from Angelica gigas Nakai in rats, Drug Metabolism and Pharmacokinetics, 41(10), 895-902, 2011
 23. Jong-Hwa Lee, Hwanmi Lim, Do-Geun Kim, Dae-Hun Park, Young-Ah Woo, Hyun-Jung Noh, Qing-Ri Jin, Kyeong-Ryoon Lee, Gye-Won Lee, and Choong-Yong Kim, Quantification of oltipraz using liquid chromatography-tandem mass spectrometry and its application to a pharmacokinetic study in rat plasma, Journal of Pharmaceutical and Biomedical Analysis, 56(3), 623-626, 2011
 24. Kyeong-Ryoon Lee, Yoon-Jee Chae, Sung-Eel Cho, and Suk-Jae Chung, A strategy for reducing particulate contamination on opening glass ampoules and development of evaluation methods for its application, Drug Development and Industrial Pharmacy, 37(12), 1394-1401, 2011 **(First-author)**
 25. Hyo-Eon Jin, Kyeong-Ryoon Lee, In-Hyul Kang, Suk-Jae Chung, and Chang-Koo Shim, Determination of zabofloxacin in rat plasma by liquid chromatography with mass spectrometry and its application to pharmacokinetic study, Journal of Pharmaceutical and Biomedical Analysis, 54(4), 873-877, 2011
 26. Kyeong-Ryoon Lee, Han-Joo Maeng, Jung-Byung Chae, Saeho Chong, Dae-Duk Kim, Chang-Koo Chim, and Suk-Jae Chung, Lack of a primary physicochemical determinant in the direct transport of drugs to the brain after nasal administration in rats: potential involvement of transporters in the pathway, Drug Metabolism and Pharmacokinetics, 25(5), 430-441, 2010 **(First author)**
 27. Kyeong-Ryoon Lee, Han-Joo Maeng, Mi-Hwa Kim, Dae-Duk Kim, Chang-Koo Shim, and Suk-Jae Chung, Simultaneous determination of artesunate and dihydroartemisinin concentrations in human plasma by high performance liquid chromatography-mass spectrometry with electro-spray ionization, Analytical Letters, 43(2), 226-239, 2010 **(First author)**
 28. Mi-Hwa Kim, Han-Joo Maeng, Kyung-Ha Yu, Kyeong-Ryoon Lee, Takashi Tsuruo, Dae-Duk Kim, Chang-Koo Shim, and Suk-Jae Chung, Evidence of carrier-mediated transport in the penetration of donepezil into the rat brain, Journal of Pharmaceutical Sciences, 99(3), 1548-1566, 2010

BOOK CHAPTERS

1. Francisco Fuentes, Limin Shu, Jong Hun Lee, Zheng-Yuan Su, Kyeong-Ryoon Lee, Ah-Ng Tony Kong, Nrf2-Target Approaches in Cancer Chemoprevention Mediated by Dietary Phytochemicals, Cancer Prevention, Springer, 53-83, 2014