List of Publications

1: **Xia L**, Kyrizaki A, Tosh DK, van Duijl TT, Roorda JC, Jacobson KA, IJzerman AP, Heitman LH. A binding kinetics study of human adenosine A_3 receptor agonists. *Biochem Pharmacol.* 2018 Jan 3. doi:10.1016/j.bcp.2017.12.026.

2: **Xia L**, de Vries H, Lenselink EB, Louvel J, Waring MJ, Cheng L, Pahlén S, Petersson MJ, Schell P, Olsson RI, Heitman LH, Sheppard RJ, IJzerman AP. Structure-Affinity Relationships and Structure-Kinetic Relationships of 1,2-Diarylimidazol-4-carboxamide Derivatives as Human Cannabinoid 1 Receptor Antagonists. *J Med Chem.* 2017; 60(23): 9545-9564. doi: 10.1021/acs.jmedchem.7b00861.

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4-amino-6-aryl-5-cyano-2-thiopyrimidines. *J Med Chem.* 2014; 57(8): 3213-22. doi: 10.1021/jm401643m.

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11: **Xia L**, Zhou M, Xiao Y, Li G, Chen X, Zhang G. Chemical constituents from Helwingia japonica. Chinese Journal of Natural Medicines 2010; 8(1): 16-20. doi: 10.3724/sp.j.1009.2010.00016

12: Wu H, Lin W, **Xia L**, Luo Y, Chen X, Li G, Zhang G, Pan X. 'N-Stereogenic Quaternary Ammonium Salts' from L-Amino Acids: Synthesis, Separation, and Absolute Configuration 2009; 92(4): 677-88. doi: 10.1002/hlca.200800326

Curriculum Vitae

Lizi Xia was born in Luzhou, China, on 4th December 1983. In 2002, after graduating from Shi Shi High School (Chengdu, China), he started his university education at Xiangya School of Medicine, Central South University (Changshang, China), majoring in biopharmaceutical sciences. In 2006 he received a bachelor degree, and then he continued a joint master training in University of Science and Technology of China (USTC) and Chengdu Institute of Biology, Chinese Academy of Sciences (CIB-CAS), majoring in medicinal (natural product) chemistry. After he had graduated as "excellent student", he worked as a medicinal chemist for Shanghai ChemPartner (Chengdu). In the beginning of 2011, he decided to follow a second Master program abroad and move to Leiden University, the Netherlands. During this study he performed two internships at the Division of Medicinal Chemistry, Leiden Academic Centre for Drug Research, under the supervision of Prof. dr. Ad IJzerman, Dr. Johannes Brussee and Dr. Laura Heitman. Both internships were focused on drug-target binding kinetics, from the perspectives of medicinal chemistry as well as molecular pharmacology.

In 2013, Lizi Xia started his PhD training at Leiden University in the same division, under supervision of Prof. dr. Ad IJzerman and Dr. Laura Heitman. His PhD research was part of an Innovative Medicine Initiative (IMI) project named Kinetics for Drug Discovery (K4DD) in collaboration with 20 partners throughout Europe in academia and industry. This consortum was founded to improve the understanding of drug-target binding kinetics. Lizi Xia's research was focused on several G protein-coupled receptors (GPCR). Lizi Xia together with his supervisors developed several valuable collaborations within and beyond K4DD partners, where he experienced the multiple working styles in academia and industry. The fruitful results of his research are described in this thesis and were presented at many international conferences and during webinars. Lizi Xia has an ambition to apply the concept of binding kinetics in a broader setting, and eventually to make his contribution to drug discovery.

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I would also like to thank my collaborators within and beyond K4DD for enabling this research and introducing me to many junior and senior passionate and talented scientists dedicating their life and energy to drug discovery. I have learned from you on how to collaborate with both pharmaceutical industry and academia.

Thirdly, I want to express my gratitude to my colleagues for all kinds of help and support. Particularly, I would like to thank Henk, who literally covered my pants when I was still a novice in binding assays. I want to thank Bart for all the beautiful computational work upon demanding request; to Julien, Jaco and Daan for all chemistry-related tasks. Especially, I must give great compliments to my master and bachelor students, Athina, Noortje, Tirsa, Wessel, Cornelia and Ellen, who were involved in parts of this thesis. I want to thank Andrea, Maarten, Xue and Zhiyi, for valuable suggestions regarding manuscript or rebuttal letter preparation.

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