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Computational modeling of pharmacokinetics and tumor dynamics to guide anti-cancer treatment

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Curriculum Vitae

Anyue Yin was born on February 24th 1992 in Beijing, China.

In 2010, she started her bachelor study in Pharmaceutical Sciences at Peking University, Beijing, China, and received her BSc degree in 2014. She then started her master's study in the field of Pharmacometrics at Peking University under the supervision of Prof. dr. Wei Lu. During this period, she performed research on population pharmacokinetic analysis of olanzapine based on clinical data with the assistance of model-based meta-analysis. She obtained her MSc degree in 2016.

In March 2017, she started a research internship at the Leiden Academic Centre for Drug Research (LACDR) at Leiden University, the Netherlands, under the supervision of Prof. dr. P.H. van der Graaf and Dr. J.G.C. van Hasselt. During her internship, she performed a quantitative systems pharmacology analysis to characterize the interaction between noradrenaline and vasopressin in vasoconstriction.

In September 2017, she started her PhD at the Leiden University Medical Center (LUMC) under the supervision of Prof. dr. H.J. Guchelaar and Dr. D.J.A.R. Moes. Her PhD projects focused on using pharmacometric modeling and simulation approaches to better guide anti-cancer treatment individualization and overcome treatment resistance. During her time at LUMC, she also provided help to other projects.

Since October 2023, she works as an Associate Consultant at Pharmetheus.

List of publications

Publications related to this thesis

Yin A, de Groot FA, et al. Population pharmacokinetic and toxicity analysis of high-dose methotrexate in patients with central nervous system lymphoma. *In preparation*

Yin A*, Veerman GDM*, et al. Quantitative modeling of tumor dynamics and development of drug resistance in non-small cell lung cancer patients treated with erlotinib. *Submitted*

Yin A, van Hasselt JGC, Guchelaar HJ, Friberg LE*, Moes DJAR*. Anti-cancer treatment schedule optimization based on tumor dynamics modelling incorporating evolving resistance. *Sci Rep*. 2022 Mar 10;12(1):4206.

Yin A*, Ettaieb MHT*, et al. Population Pharmacokinetic and Pharmacogenetic Analysis of Mitotane in Patients with Adrenocortical Carcinoma: Towards Individualized Dosing. *Clin Pharmacokinet*. 2021 Jan;60(1):89-102.

Yin A, Moes DJAR, van Hasselt JGC, Swen JJ, Guchelaar HJ. A Review of Mathematical Models for Tumor Dynamics and Treatment Resistance Evolution of Solid Tumors. *CPT Pharmacometrics Syst Pharmacol*. 2019 Oct;8(10):720-737.

Publications not related to this thesis

Yin A, Yamada A, Stam WB, van Hasselt JGC, van der Graaf PH. Quantitative systems pharmacology analysis of drug combination and scaling to humans: the interaction between noradrenaline and vasopressin in vasoconstriction. *Br J Pharmacol*. 2018 Aug;175(16):3394-3406.

Yin A*, Shang D*, Wen Y, Li L, Zhou T, Lu W. Population pharmacokinetics analysis of olanzapine for Chinese psychotic patients based on clinical therapeutic drug monitoring data with assistance of meta-analysis. *Eur J Clin Pharmacol*. 2016 Aug;72(8):933-944.

* Shared first authorship

Shared last authorship

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