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The impact of non-genetic factors on drug metabolism: towards better phenotype predictions

Jong, L.M. de

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Curriculum Vitae

Laura de Jong was born on the 21st of September, 1997 in Den Haag. After graduating from Hofstad Lyceum in 2015, she started with her bachelor Bio-Pharmaceutical Sciences at Leiden University, followed by the master Bio-Pharmaceutical Sciences. During her master, she performed an internship at the division of BioTherapeutics under supervision of dr. Menno Hoekstra, where she investigated a potential new target to treat atherosclerosis. She then moved to Belgium for a six-month internship at Janssen Pharmaceutica's Functional Genomics department, focusing on developing an in vitro cell system to study ternary complex formation of PROTACs. Laura completed her Master's degree summa cum laude. In September 2020, she started her PhD at the Leiden Academic Center for Drug Research under the supervision of dr. Martijn Manson, prof.dr. Robert Rissmann and prof.dr. Jesse Swen, aiming to better understand how non-genetic factors affect hepatic drug metabolism.

List of publications

de Jong LM, Jiskoot W, Swen JJ, Manson ML. Distinct Effects of Inflammation on Cytochrome P450 Regulation and Drug Metabolism: Lessons from Experimental Models and a Potential Role for Pharmacogenetics. *Genes (Basel)*. 2020 Dec 16;11(12):1–24. doi: 10.3390/genes11121509.

de Jong LM, Klomp SD, Treijtel N, Rissmann R, Swen JJ, Manson ML. A systematic review on disease-drug-drug interactions with immunomodulating drugs: A critical appraisal of risk assessment and drug labelling. *Br J Clin Pharmacol*. 2022 Oct;88(10):4387–402. doi: 10.1111/bcp.15372.

de Jong LM, Boussallami S, Sánchez-López E, Giera M, Tushuizen ME, Hoekstra M, Hawinkels LJAC, Rissmann R, Swen JJ, Manson ML. The impact of CYP2C19 genotype on phenoconversion by concomitant medication. *Front Pharmacol*. 2023 Jun 8;14:1201906. doi: 10.3389/fphar.2023.1201906

de Jong LM, Harpal C, Berg DVD, Hoekstra M, Peter NJ, Rissmann R, Swen JJ, Manson ML. CYP P450 and non-CYP P450 Drug Metabolizing Enzyme Families Exhibit Differential Sensitivities towards Proinflammatory Cytokine Modulation. *Drug Metab Dispos*. 2024 Nov 15;52(12):1429–37. doi: 10.1124/dmd.124.001867.

de Jong LM, van de Kreeke M, Ahmadi M, Swen JJ, Knibbe CAJ, van Hasselt JGC, Manson ML, Krekels EHJ. Changes in Plasma Clearance of CYP450 Probe Drugs May Not be Specific for Altered In Vivo Enzyme Activity Under (Patho) Physiological Conditions: How to Interpret Findings of Probe Cocktail Studies. *Clin Pharmacokinet*. 2024 Nov;63(11):1585–95. doi: 10.1007/s40262-024-01426-8.

Hoekstra M, Nahon JE, **de Jong LM**, Kröner MJ, de Leeuw LR, Van Eck M. Inhibition of PRMT3 activity reduces hepatic steatosis without altering atherosclerosis susceptibility in apoE knockout mice. *Biochim Biophys Acta Mol Basis Dis*. 2019 Jun 1;1865(6):1402–9. doi: 10.1016/j.bbadis.2019.02.012.

de Jong LM, Zhang Z, den Hartog Y, Sijsenaar TJP, Martins Cardoso R, Manson ML, Hankemeier T, Lindenburg PW, Salvatori DCF, Van Eck M, Hoekstra M. PRMT3 inhibitor SGC707 reduces triglyceride levels and induces pruritus in Western-type diet-fed LDL receptor knockout mice. *Sci Rep.* 2022 Jan 10;12(1):483. doi: 10.1038/s41598-021-04524-w.

Hoekstra M, **de Jong LM**, van der Geest R, de Leeuw LR, Krisnamurthi R, Geerling JJ, Van Eck M. LXR Agonist T0901317's Hepatic Impact Overrides Its Atheroprotective Action in Macrophages, Driving Early Atherogenesis in Chow-Diet-Fed Male Apolipoprotein E Knockout Mice. *Biomolecules.* 2024 Apr 2;14(4):429. doi: 10.3390/biom14040429.