

Jasper Stevens
Groningen Kidney Center (GKC)



Employment

Pharmacometrician

Centre for Human Drug Research
Netherlands
1-Sep-2012 → 1-Sep-2016

Post-doctoral position

Indiana University-Purdue University Indianapolis, Indiana Clinical and Translational Sciences Institute, Indiana, USA
1-Sep-2010 → 1-Sep-2012

Research output

1. Bakker C, Prins S, Liptrot J, Hart EP, Klaassen ES, Brown GA et al. **Safety, pharmacokinetics and pharmacodynamics of HTL0009936, a selective muscarinic M-1-acetylcholine receptor agonist: A randomized cross-over trial.** *British Journal of Clinical Pharmacology*. 2021 May 8;1-11. <https://doi.org/10.1111/bcp.14872>
2. Koomen JV, Stevens J, Monster-Simons MH, Heerspink HJL, Mol PGM. **A Review of the Dose Justification of Phase 3 Trials to Regulatory Authorities for Drugs Intended for the Treatment of Type 2 Diabetes in Europe.** *Frontiers in Pharmacology*. 2021 Apr 28;12. <https://doi.org/10.3389/fphar.2021.626766>
3. van Esdonk MJ, Stevens J. **The power of modelling pulsatile profiles.** *Journal of pharmacokinetics and pharmacodynamics*. 2021 Mar 3. <https://doi.org/10.1007/s10928-021-09743-2>
4. van der Aart-van der Beek AB, Koomen JV, Dekkers CCJ, Barbour SJ, Boulton DW, Gansevoort RT et al. **Evaluation of the Pharmacokinetics and Exposure-Response Relationship of Dapagliflozin in Patients without Diabetes and with Chronic Kidney Disease.** *Clinical Pharmacokinetics*. 2021 Feb 15. <https://doi.org/10.1007/s40262-020-00956-1>
5. Koomen JV, Stevens J, Bakris G, Correa-Rotter R, Hou F, Kitzman DW et al. **Individual atrasentan exposure is associated with long-term kidney and heart failure outcomes in patients with type 2 diabetes and chronic kidney disease.** *Clinical Pharmacology & Therapeutics*. 2020 Dec 18;1-22. <https://doi.org/10.1002/cpt.2143>
6. Koomen J, Stevens J, Bakris G, Correa-Rotter R, Hou FF, Kitzman DW et al. **Inter-individual variability in atrasentan exposure partly explains variability in kidney protection and fluid retention responses: A post hoc analysis of the SONAR trial.** *Diabetes obesity & metabolism*. 2020 Nov 26;(2):561-568. <https://doi.org/10.1111/dom.14252>
7. Koomen JV, Stevens J, Heerspink HJL. **Exposure-response relationships of dapagliflozin on cardiorenal risk markers and adverse events: A pooled analysis of 13 phase II/III trials.** *British Journal of Clinical Pharmacology*. 2020 Nov;86(11):2192-2203. <https://doi.org/10.1111/bcp.14318>
8. Kuiper SG, Dijkmans AC, Wilms EB, Kamerling IMC, Burggraaf J, Stevens J et al. **Pharmacokinetics of fosfomycin in patients with prophylactic treatment for recurrent Escherichia coli urinary tract infection.** *Journal of Antimicrobial Chemotherapy*. 2020 Nov;75(11):3278-3285. <https://doi.org/10.1093/jac/dkaa294>
9. van Esdonk MJ, Burggraaf J, van der Graaf PH, Stevens J. **Model informed quantification of the feed-forward stimulation of growth hormone by growth hormone-releasing hormone.** *British Journal of Clinical Pharmacology*. 2020 Aug;86(8):1575-1584. <https://doi.org/10.1111/bcp.14265>
10. Goulooze SC, Kruithof AC, Alikunju S, Gautam A, Burggraaf J, Kamerling IMC et al. **The effect of food and formulation on the population pharmacokinetics of cholesteryl ester transferase protein inhibitor DRL-17822 in healthy male volunteers.** *British Journal of Clinical Pharmacology*. 2020 Apr 20;86(10):2095-2101. <https://doi.org/10.1111/bcp.14297>
11. van Esdonk MJ, Burggraaf J, Dehez M, van der Graaf PH, Stevens J. **Quantification of the endogenous growth hormone and prolactin lowering effects of a somatostatin-dopamine chimera using population PK/PD modeling.** *Journal of pharmacokinetics and pharmacodynamics*. 2020 Apr 4;47(3):229-239. <https://doi.org/10.1007/s10928-020-09683-3>

12. Kroonen MYAM, Koomen JV, Petrykiv SI, Laverman GD, Heerspink HJL, Stevens J. **Exposure-response relationships for the sodium-glucose co-transporter-2 inhibitor dapagliflozin with regard to renal risk markers.** *Diabetes obesity & metabolism*. 2020 Feb 17;22(6):916-921. <https://doi.org/10.1111/dom.13976>
13. Stevens J, Wessels MA, Roggeveld J, Koster RA, Dekkers CC, van Gelder MK et al. **UHPLC-MS/MS method for iohexol determination in human EDTA and lithium-heparin plasma, human urine and in goat- and pig EDTA plasma.** *Bioanalysis*. 2020;12(14):981-990. <https://doi.org/10.4155/bio-2020-0122>
14. Koomen JV, Heerspink HJL, Schrieks IC, Schwartz GG, Lincoff AM, Nicholls SJ et al. **Exposure and response analysis of aleglitazar on cardiovascular risk markers and safety outcomes: An analysis of the AleCardio trial.** *Diabetes obesity & metabolism*. 2019 Oct 1. <https://doi.org/10.1111/dom.13862>
15. Kroonen MYAM, Stevens J, de Zeeuw D, Heerspink HJL. **Association between individual cholesterol and proteinuria response and exposure to atorvastatin or rosuvastatin.** *Diabetes obesity & metabolism*. 2019 Sep 30. <https://doi.org/10.1111/dom.13849>
16. Joost van Esdonk M, Stevens J, Stuurman FE, de Boon WMI, Dehez M, Hein van der Graaf P et al. **The pharmacodynamic effects of a dopamine-somatostatin chimera agonist on the cardiovascular system.** *Journal of Cardiovascular Pharmacology*. 2019 Aug 1;74(2):128-136. <https://doi.org/10.1097/FJC.0000000000000695>
17. Kruithof AC, Kumar R, Stevens J, de Kam ML, Gautam A, Alikunju S et al. **Effect of Food on the Pharmacokinetics of 2 Formulations of DRL-17822, a Novel Selective Cholesteryl Ester Transfer Protein (CETP) Inhibitor, in Healthy Males.** *Clinical pharmacology in drug development*. 2019 Jun 10;8(8):1042-1052. <https://doi.org/10.1002/cpdd.707>
18. van Esdonk MJ, Lindeman I, Okkerse P, de Kam ML, Groeneveld GJ, Stevens J. **Population pharmacokinetic/pharmacodynamic analysis of nociceptive pain models following an oral pregabalin dose administration to healthy subjects.** *CPT: Pharmacometrics & Systems Pharmacology*. 2018 Sep;7(9):573-580. <https://doi.org/10.1002/psp4.12318>
19. Koomen JV, Stevens J, Mostafa NM, Parving H-H, de Zeeuw D, Heerspink HJL. **Determining the optimal dose of atrasentan by evaluating the exposure-response relationships of albuminuria and bodyweight.** *Diabetes obesity & metabolism*. 2018 Aug;20(8):2019-2022. <https://doi.org/10.1111/dom.13312>
20. Van Esdonk MJ, Van Zutphen EJM, Roelfsema F, Pereira AM, Van Der Graaf PH, Biermasz NR et al. **How are growth hormone and insulin-like growth factor-1 reported as markers for drug effectiveness in clinical acromegaly research? A comprehensive methodologic review.** *Pituitary*. 2018 Jun;21(3):310-322. <https://doi.org/10.1007/s11102-018-0884-4>
21. Ortiz Zacarías NV, Dijkmans AC, Burggraaf J, Mouton JW, Wilms EB, van Nieuwkoop C et al. **Fosfomycin as a potential therapy for the treatment of systemic infections: A population pharmacokinetic model to simulate multiple dosing regimens.** *Pharmacology Research & Perspectives*. 2018 Feb;6(1). e00378. <https://doi.org/10.1002/prp2.378>
22. Ducore J, Lawrence JB, Simpson M, Boggio L, Bellon A, Burggraaf J et al. **Safety and dose-dependency of eptacog beta (activated) in a dose escalation study of non-bleeding congenital haemophilia A or B patients, with or without inhibitors.** *Haemophilia*. 2017 Nov;23(6):844-851. <https://doi.org/10.1111/hae.13357>
23. Dijkmans AC, Zacarías NVO, Burggraaf J, Mouton JW, Wilms EB, van Nieuwkoop C et al. **Fosfomycin: Pharmacological, Clinical and Future Perspectives.** *Antibiotics*. 2017 Oct 31;6(4). <https://doi.org/10.3390/antibiotics6040024>
24. van Esdonk MJ, Burggraaf J, van der Graaf PH, Stevens J. **A two-step deconvolution-analysis-informed population pharmacodynamic modeling approach for drugs targeting pulsatile endogenous compounds.** *Journal of pharmacokinetics and pharmacodynamics*. 2017 Aug;44(4):389-400. <https://doi.org/10.1007/s10928-017-9526-0>
25. Baakman AC, Alvarez-jimenez R, Rissmann R, Klaassen ES, Stevens J, Goulooze SC et al. **An Anti-Nicotinic Cognitive Challenge Model using Mecamylamine in Comparison with the Anti-Muscarinic Cognitive Challenge using Scopolamine.** *British Journal of Clinical Pharmacology*. 2017 Aug;83(8):1676-1687. <https://doi.org/10.1111/bcp.13268>
26. Kruithof AC, Watanabe S, Peeters PA, de Kam ML, Zuiker RG, Stevens J et al. **Pharmacological interactions between brivaracetam and ethanol in healthy males.** *Journal of Psychopharmacology*. 2017 Jul 1;31(7):915-926. <https://doi.org/10.1177/0269881116665326>
27. Okkerse P, van Amerongen G, Stevens J, Butt RP, Gurrell R, Dahan A et al. **The use of a battery of pain models to detect analgesic properties of compounds: a two-part four-way crossover study.** *British Journal of Clinical Pharmacology*. 2017 May;83(5):976-990. <https://doi.org/10.1111/bcp.13183>
28. Alvarez-Jimenez R, Baakman AC, Stevens J, Goulooze SC, Hart EP, Rissmann R et al. **Pharmacokinetics and pharmacodynamics of oral mecamylamine - development of a nicotinic acetylcholine receptor antagonist cognitive challenge test using modelling and simulation.** *Journal of Psychopharmacology*. 2017 Feb 1;31(2):192-203. <https://doi.org/10.1177/0269881116681417>
29. Dijkmans AC, Kuiper SG, Burggraaf J, Mouton JW, Wilms EB, Touw DJ et al. **Fosfomycine, een oud antibioticum met nieuwe mogelijkheden.** *Nederlands Tijdschrift voor Geneeskunde*. 2017;161(0). D973.

30. Kanhai K, Goulooze SC, Stevens J, Hay JL, Dent G, Verma A et al. **Quantifying Beta-Galactosylceramide Kinetics in Cerebrospinal Fluid of Healthy Subjects Using Deuterium Labeling**. *Clinical and translational science*. 2016 Dec;9(6):321-327. <https://doi.org/10.1111/cts.12424>
31. Reijers JAA, van Donge T, Schepers FML, Burggraaf J, Stevens J. **Use of population approach non-linear mixed effects models in the evaluation of biosimilarity of monoclonal antibodies**. *European Journal of Clinical Pharmacology*. 2016 Nov;72(11):1343-1352. <https://doi.org/10.1007/s00228-016-2101-6>
32. Alvarez-Jimenez R, Groeneveld GJ, van Gerven JMA, Goulooze SC, Baakman AC, Hay JL et al. **Model-based exposure-response analysis to quantify age related differences in the response to scopolamine in healthy subjects**. *British Journal of Clinical Pharmacology*. 2016 Oct;82(4):1011-1021. <https://doi.org/10.1111/bcp.13031>
33. Peters E, Heuberger JAAC, Tiessen R, van Elsas A, Masereeuw R, Arend J et al. **Pharmacokinetic Modeling and Dose Selection in a Randomized, Double-Blind, Placebo-Controlled Trial of a Human Recombinant Alkaline Phosphatase in Healthy Volunteers**. *Clinical Pharmacokinetics*. 2016 Oct;55(10):1227-1237. <https://doi.org/10.1007/s40262-016-0399-y>
34. Kervezee L, Gotta V, Stevens J, Birkhoff W, Kamerling I, Danhof M et al. **Levofloxacin-Induced QTc Prolongation Depends on the Time of Drug Administration**. *CPT: Pharmacometrics & Systems Pharmacology*. 2016 Sep 1;5(9):466-474. <https://doi.org/10.1002/psp4.12085>
35. Teeninga N, Guan Z, Stevens J, Kist-van Holthe JE, Ackermans MT, van der Heijden AJ et al. **Population Pharmacokinetics of Prednisolone in Relation to Clinical Outcome in Children With Nephrotic Syndrome**. *Therapeutic Drug Monitoring*. 2016 Aug;38(4):534-545. <https://doi.org/10.1097/FTD.0000000000000308>
36. Guan Z, Klumpers LE, Oyeyayo O-O, Heuberger J, van Gerven JMA, Stevens J. **Pharmacokinetic/pharmacodynamic modelling and simulation of the effects of different cannabinoid receptor type 1 antagonists on (9)-tetrahydrocannabinol challenge tests**. *British Journal of Clinical Pharmacology*. 2016 Apr;81(4):713-723. <https://doi.org/10.1111/bcp.12852>
37. Kervezee L, Stevens J, Birkhoff W, Kamerling IMC, de Boer T, Dröge M et al. **Identifying 24 h variation in the pharmacokinetics of levofloxacin: a population pharmacokinetic approach**. *British Journal of Clinical Pharmacology*. 2016 Feb;81(2):256-268. <https://doi.org/10.1111/bcp.12783>
38. Baakman AC, 't Hart E, Kay DG, Stevens J, Klaassen ES, Maelicke A et al. **First in human study with a prodrug of galantamine: Improved benefit-risk ratio?** *Alzheimer's & Dementia: Translational Research & Clinical Interventions*. 2016 Jan;2(1):13-22. <https://doi.org/10.1016/j.trci.2015.12.003>
39. Spiegelstein O, Stevens J, Van Gerven J, Nathan PJ, Maynard JP, Mayleben DW et al. **Pharmacokinetics, pharmacodynamics and safety of CEP-26401, a high-affinity histamine-3 receptor antagonist, following single and multiple dosing in healthy subjects**. *Journal of Psychopharmacology*. 2016;30(10):983-993. <https://doi.org/10.1177/0269881116645301>
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43. Kleinloog D, Stevens J, Heuberger J, Spinhoven P, van Gerven J. **The influence of personality on the sensitivity to subjective effects of Δ9-tetrahydrocannabinol**. *Psychiatry Research*. 2014 Dec 30;220(3):945-953. <https://doi.org/10.1016/j.psychres.2014.10.010>
44. Stevens J, Bies RR, Shekhar A, Anand A. **Bayesian model of Hamilton Depression Rating Score (HDRS) with memantine augmentation in bipolar depression**. *British Journal of Clinical Pharmacology*. 2013 Mar;75(3):791-798. <https://doi.org/10.1111/j.1365-2125.2012.04398.x>
45. Stevens J, Ploeger BA, Hammarlund-Udenaes M, Osswald G, van der Graaf PH, Danhof M et al. **Mechanism-based PK-PD model for the prolactin biological system response following an acute dopamine inhibition challenge: quantitative extrapolation to humans**. *Journal of pharmacokinetics and pharmacodynamics*. 2012 Oct;39(5):463-477. <https://doi.org/10.1007/s10928-012-9262-4>
46. Stevens J, Ploeger BA, van der Graaf PH, Danhof M, de Lange ECM. **Systemic and direct nose-to-brain transport pharmacokinetic model for remoxipride after intravenous and intranasal administration**. *Drug Metabolism and Disposition*. 2011 Dec 1;39(12):2275-2282. <https://doi.org/10.1124/dmd.111.040782>
47. Stevens J, van den Berg D-J, de Ridder S, Niederländer HAG, van der Graaf PH, Danhof M et al. **Online solid phase extraction with liquid chromatography-tandem mass spectrometry to analyze remoxipride in small plasma-, brain homogenate-, and brain microdialysate samples**. *Journal of Chromatography B-Analytical Technologies in the Biomedical and Life Sciences*. 2010 Apr 15;878(13-14):969-975. <https://doi.org/10.1016/j.jchromb.2010.02.024>

48. Stevens J, Suidgeest E, van der Graaf PH, Danhof M, de Lange ECM. **A new minimal-stress freely-moving rat model for preclinical studies on intranasal administration of CNS drugs.** *Pharmaceutical Research*. 2009 Aug;26(8):1911-1917. <https://doi.org/10.1007/s11095-009-9907-1>

Activities

2017

CBG-MEB; Consultant for PK-assessors

Jasper Stevens (Consultant)

15-May-2017 → ...

2016

Consultancy related activities in the field of pharmacometrics and pharmacokinetics

Jasper Stevens (Consultant)

1-Dec-2016 → 1-Dec-2018

Consultancy to make use of the know-how and expertise of the UMCG on the field of human pharmacology applied to drug development

Jasper Stevens (Consultant)

20-Oct-2016 → 20-Oct-2019