



Curriculum Vitae

Personal information **Flora Musuamba Tshinanu**

Work experience

1. Employer: University of Namur
 - Start date: 092020
 - End date:
 - Position: Lecturer
 - Activities: _ Teaching _ Research
 - Country: Belgium
2. Employer: Université de Kinshasa
 - Start date: 092001
 - End date: 092006
 - Position: Teaching and research assistant
 - Activities: _ Teaching _ Research
 - Country: Democratic Republic of the Congo
3. Employer: Université Catholique de Louvain
 - Start date: 092006
 - End date: 092011
 - Position: Teaching and research assistant
 - Activities: _ Teaching _ Research
 - Country: Belgium
4. Employer: Leiden University
 - Start date: 012010
 - End date: 012013
 - Position: Post Doctoral researcher
 - Activities: _ Teaching _ Research
 - Country: Netherlands
5. Employer: Université Catholique de Louvain
 - Start date: 012013
 - End date: 092014
 - Position: Post Doctoral fellow
 - Activities: Teaching Research
 - Country: Belgium
6. Employer: University College London
 - Start date: 092013
 - End date: 092016
 - Position: Research associate
 - Activities: Teaching Research
 - Country: United Kingdom
7. Employer: Federal Agency for Medicines and Health Products
 - Start date: 052015
 - End date:
 - Position: Assessor
 - Activities: _ Assessment of scientific advices, marketing authorisation applications_, and post_marketing authorisation (PSURS, renewals, referral, etc) application_ related documents
 - Country: Belgium
8. Employer: Université de Limoges
 - Start date: 092016
 - End date: 092018
 - Position: Associate Professor
 - Activities:
 - Country: France
9. Employer: Université de Lubumbashi
 - Start date: 092012
 - End date:
 - Position: Associate Professor
 - Activities: Teaching Research
 - Country: Democratic Republic of the Congo
10. Employer: Université Libre de Bruxelles
 - Start date: 092013
 - End date:
 - Position: Lecturer
 - Activities: Teaching
 - Country: Belgium

Education and training

1. Subject: Université de Kinshasa
 - Start date: 011994
 - End date: 012000
 - Qualification: Pharmacist
 - Organisation:
 - Country: Democratic Republic of the Congo
2. Subject: Université Libre de Bruxelles (PHARMED)

- Start date: 092004
 - End date: 092006
 - Qualification: Master in Pharmaceutical medicine
 - Organisation:
 - Country: Belgium
3. Subject: Université Catholique de Louvain
- Start date: 092006
 - End date: 122009
 - Qualification: PhD in Pharmaceutical sciences
 - Organisation:
 - Country: Belgium

Additional information

Publications

List of publications A. Articles 1. Skottheim Rusten I, Musuamba FT. Scientific and regulatory evaluation of empirical pharmacometric models: An application of the risk informed credibility assessment framework. *CPT Pharmacometrics Syst Pharmacol.* 2021 Nov;10(11):1281_1296. doi: 10.1002/psp4.12708. Epub 2021 Oct 8. PMID: 34514745; PMID: PMC8592505. 2. Manolis E, Musuamba FT, Karlsson KE. The European Medicines Agency Experience With Pediatric Dose Selection. *J Clin Pharmacol.* 2021 Jun;61 Suppl 1:S22_S27. doi: 10.1002/jcph.1863. PMID:34185894. 3. Musuamba FT, Skottheim Rusten I, Lesage R, Russo G, Bursi R, Emili L, Wangorsch G, Manolis E, Karlsson KE, Kulesza A, Courcelles E, Boissel JP, Rousseau CF, Voisin EM, Alessandrello R, Curado N, Dall'ara E, Rodriguez B, Pappalardo F, Geris L. Scientific and regulatory evaluation of mechanistic in silico drug and disease models in drug development: Building model credibility. *CPT Pharmacometrics Syst Pharmacol.* 2021 Aug;10(8):804_825. doi:10.1002/psp4.12669. Epub 2021 Jul 13. PMID: 4102034; PMID: PMC8376137. 4. Manolis E, Musuamba FT, Karlsson KE. Regulatory Considerations for Building an In Silico Clinical Pharmacology Backbone by 2030. *Clin Pharmacol Ther.* 2020Apr;107(4):746_748. doi: 0.1002/cpt.1772. Epub 2020 Feb 3. PMID: 32010966. 5. Musuamba FT, Bursi R, Manolis E, Karlsson K, Kulesza A, Courcelles E, Boissel JP, Lesage R, Crozatier C, Voisin EM, Rousseau CF, Marchal T, Alessandrello R, Geris L. Verifying and Validating Quantitative Systems Pharmacology and In Silico Models in Drug Development: Current Needs, Gaps, and Challenges. *CPT Pharmacometrics Syst Pharmacol.* 2020 Apr;9(4):195_197. doi: 0.1002/psp4.12504. Epub 2020 Apr 1. PMID: 32237207; PMID: PMC7179957. 6. Li Z, Mirams GR, Yoshinaga T, Ridder BJ, Han X, Chen JE, Stockbridge NL, Wisialowski TA, Damiano B, Severi S, Morissette P, Kowey PR, Holbrook M, Smith G, Rasmusson RL, Liu M, Song Z, Qu Z, Leishman DJ, Steidl, Nichols J, Rodriguez B, Bueno_Orovio A, Zhou X, Passini E, Edwards AG, Morotti S, Ni H, Grandi E, Clancy CE, Vandenberg J, Hill A, Nakamura M, Singer T, Polonchuk L, Greiter_Wilke A, Wang K, Nave S, Fullerton A, Sobie EA, Paci M, Musuamba Tshinanu F, Strauss DG. General Principles for the Validation of Proarrhythmia Risk Prediction Models: An Extension of the CiPA In Silico Strategy. *Clin Pharmacol Ther.* 2020 Jan;107(1):102_111. doi: 10.1002/cpt.1647. Epub 2019 Nov 10. PMID: 31709525; PMID: PMC6977398. 7. Viceconti M, Pappalardo F, Rodriguez B, Horner M, Bischoff J, Musuamba Tshinanu F. In silico trials: Verification, validation and uncertainty quantification of predictive models used in the regulatory evaluation of biomedical products. *Methods.* 2021 Jan;185:120_127. doi: 10.1016/j.ymeth.2020.01.011. Epub 2020 Jan 25. PMID: 31991193; PMID:PMC7883933. 8. Thémans P, Dauby N, Schrooyen L, Lebout F, Delforge M, Nasreddine R, Libois A, Payen MC, Konopnicki D, Guillaume F, Lescrainier C, Verlinden V, Dogné JM, Hamdani J, Musuamba FT. Model informed dosing of hydroxychloroquine in COVID_19 patients: Learnings from the recent experience, remaining uncertainties and gaps. *Br J Clin Pharmacol.* 2021 Feb;87(2):674_682. doi: 10.1111/bcp.14436. Epub 2020 Jul 19. PMID: 32559820. 9. Thémans P, Belkhir L, Dauby N, Yombi JC, De Greef J, Delongie KA, Vandeputte M, Nasreddine R, Wittebole X, Guillaume F, Lescrainier C, Verlinden V, Kiridis S, Dogné JM, Hamdani J, Wallemacq P, Musuamba FT. Population Pharmacokinetics of Hydroxychloroquine in COVID_19 Patients: Implications for Dose Optimization. *Eur J Drug Metab Pharmacokinet.* 2020 Dec;45(6):703_713. doi:10.1007/s13318_020_00648_y. PMID: 32968954; PMID: PMC7511144. 10. D'Agate S, Musuamba FT, Della Pasqua O. Dose Rationale for Amoxicillin in Neonatal Sepsis When Referral Is Not Possible. *Front Pharmacol.* 2020 Sep 25;11:521933. doi: 10.3389/fphar.2020.521933. PMID: 33117151; PMID: PMC7549385. 11. D'Agate S, Musuamba FT, Jacqz_Aigrain E, Della Pasqua O. Simplified Dosing Regimens for Gentamicin in Neonatal Sepsis. *Front Pharmacol.* 2021 Mar 8;12:624662. doi: 0.3389/fphar.2021.624662. PMID: 33762945; PMID: PMC7982486. 12. Antoine Buemi, Jérôme Duisit, Flora Musuamba, Tom Darius, Martine De Meyer, Selda Aydin, Nada Kanaan, Eric Goffin, and Michel Mourad. Donor age and ischemia time are independent factors affecting graft survival after En_bloc kidney transplantation from donors under three years of age. *Transplant International.* OBM Transplantation. 2020, volume 4, issue 2 doi:10.21926/obm.transplant.2002109 13. P. Thémans, F. T. Musuamba, and J. J. Winkin. Model_based strategies of drug dosing for pharmacokinetic systems. *IFAC_PapersOnLine*, *(1):1_8, 2020. 14. Musuamba FT, Bursi R, Manolis E, Karlsson K, Kulesza A, Courcelles E, Boissel JP, Lesage R, Crozatier C, Voisin EM, Rousseau CF, Marchal T, Alessandrello R, Geris L. Verifying and Validating Quantitative Systems Pharmacology and In Silico Models in Drug Development: Current Needs, Gaps, and Challenges. *CPT Pharmacometrics Syst Pharmacol.* 2020 Apr;9(4):195_197. doi: 10.1002/psp4.12504. Epub 2020 Apr 1. PMID: 32237207 15. Manolis E, Musuamba FT, Karlsson KE. Regulatory Considerations for Building an In Silico Clinical Pharmacology Backbone by 2030. *Clin Pharmacol Ther.* 2020 Apr;107(4):746_748. doi: 10.1002/cpt.1772. Epub 2020 Feb 3. PMID: 32010966 16. Nanga TM, Doan TTP, Marquet P, Musuamba FT. Toward a robust tool for pharmacokinetic_based personalization of treatment with tacrolimus in solid organ transplantation: A model_based meta_analysis approach. *Br J Clin Pharmacol.* 2019 Dec;85(12):2793_2823. doi: 10.1111/bcp.14110. Epub 2019 Dec 17. PMID: 31471970 17. Thémans P, Marquet P, Winkin JJ, Musuamba FT. Towards a Generic Tool for Prediction of Meropenem Systemic and Infection_Site Exposure: A Physiologically Based Pharmacokinetic Model for Adult Patients with Pneumonia. *Drugs R D.* 2019 Jun;19(2):177_189. doi: 10.1007/s40268_019_0268_x. PMID: 31090024. 18. Pappalardo F, Russo G, Tshinanu FM, Viceconti M. In silico clinical trials: concepts and early adoptions. *Brief Bioinform.* 2019 Sep 27;20(5):1699_1708. doi: 10.1093/bib/bby043. PMID: 29868882 Review. 19. Musuamba FT, Manolis E, Holford N, Cheung S, Friberg LE, Ogungbenro K, Posch M, Yates J, Berry S, Thomas N, Corriol_Rohou S, Bornkamp B, Bretz F, Hooker AC, Van der Graaf PH, Standing JF, Hay J, Cole S, Gigante V, Karlsson K, Dumortier T, Benda N, Serone F, Das S, Brochot A, Ehmman F, Hemmings R, Rusten IS. Advanced Methods for Dose and Regimen Finding During Drug Development: Summary of the EMA/EFPIA Workshop on Dose Finding (London 4_5 December 2014). *CPT Pharmacometrics Syst Pharmacol.* 2017 Jul;6(7):418_429. doi: 10.1002/psp4.12196. Epub 2017 Jul 19. PMID: 28722322. 20. Manolis E, Brogren J, Cole S, Hay JL, Nordmark A, Karlsson KE, Lentz F, Benda N, Wangorsch G, Pons G, Zhao W, Gigante V, Serone F, Standing JF, Dokoumetzidis A, Vakkilainen J, van den Heuvel M, Mangas Sanjuan V, Taminiau J, Kerwash E, Khan D, Musuamba FT, Skottheim Rusten I; Commentary on the MID3 Good Practices Paper. *EMA Modelling and Simulation Working Group.* *CPT Pharmacometrics Syst Pharmacol.* 2017 Jul;6(7):416_417. doi: 10.1002/psp4.12223. Epub 2017 Jul 22. PMID: 28653481. 21. Teutonico D, Musuamba F, Maas HJ, Facius A, Yang S, Danhof M, Della Pasqua O. Generating Virtual Patients by Multivariate and Discrete Re_Sampling Techniques. *Pharm Res.* 2015 Oct;32(10):3228_37. doi: 10.1007/s11095_015_1699_x. Epub 2015 May 21. PMID: 25994981 Free PMC article. 22. Thi MT, Mourad M, Capron A, Tshinanu FM, Vincent MF, Wallemacq P. Plasma and intracellular pharmacokinetic_pharmacodynamic analysis of mycophenolic acid in de novo kidney transplant patients. *Clin Biochem.* 2015 Apr;48(6):401_5. doi: 10.1016/j.clinbiochem.2014.12.005. Epub 2014 Dec 16. PMID: 25523299 23. Musuamba FT, Teutonico D, Maas HJ, Facius A, Yang S, Danhof M, Della Pasqua O. Prediction of disease progression, treatment response and dropout in chronic obstructive pulmonary disease (COPD). *Pharm Res.* 2015 Feb;32(2):617_27. doi: 10.1007/s11095_014_1490_4. Epub 2014 Sep 18. PMID: 25231008. 24. Frippiat F, Musuamba FT, Seidel L, Albert A, Denooz R, Charlier C, Van Bambeke F, Wallemacq P, Descy J, Lambermont B, Layios N, Damas P, Moutschen M. Modelled target attainment after meropenem infusion in patients with severe nosocomial pneumonia: the PROMESSE study. *J Antimicrob Chemother.* 2015 Jan;70(1):207_16. doi: 10.1093/jac/dku354. Epub 2014 Sep 12. PMID: 25216821 25. Guy_Viterbo V, Baudet H, Elens L, Haufroid V, Lacaille F, Girard M, Debray D, Chardot C, Reding R, Wallemacq P, Musuamba F. Influence of donor_recipient CYP3A4/5 genotypes, age and fluconazole on tacrolimus pharmacokinetics in pediatric liver transplantation: a population approach. *Pharmacogenomics.* 2014 Jun;15(9):1207_21. doi: 10.2217/pgs.14.75. PMID: 25141896 26. Buemi A, Musuamba F, Frederic S, Douhet A, De Meyer M, De Pauw L, Darius T, Kanaan N, Wallemacq P, Mourad M.

Is plasma and urine neutrophil gelatinase-associated lipocalin (NGAL) determination in donors and recipients predictive of renal function after kidney transplantation? *Clin Biochem*. 2014 Oct;47(15):68-72. doi: 10.1016/j.clinbiochem.2014.06.079. Epub 2014 Jul 8. PMID: 25011070 27. Wunnapuk K, Mohammed F, Gawarammana I, Liu X, Verbeeck RK, Buckley NA, Roberts MS, Musuamba FT. Prediction of paraquat exposure and toxicity in clinically ill poisoned patients: a model-based approach. *Br J Clin Pharmacol*. 2014 Oct;78(4):855-66. doi: 10.1111/bcp.12389. PMID: 24697850. 28. Musuamba FT, Guy_Viterbo V, Reding R, Verbeeck RK, Wallemacq P. Population pharmacokinetic analysis of tacrolimus early after pediatric liver transplantation. *Ther Drug Monit*. 2014 Feb;36(1):54-61. doi: 10.1097/FTD.0b013e31829dcbcd.PMID: 24081207 29. Guy_Viterbo V, Scohy A, Verbeeck RK, Reding R, Wallemacq P, Musuamba FT. Population pharmacokinetic analysis of tacrolimus in the first year after pediatric liver transplantation. *Eur J Clin Pharmacol*. 2013 Aug;69(8):1533-42. doi: 10.1007/s00228_013_1501_0. Epub 2013 Apr 16. PMID: 23588560 30. Verbeeck RK, Musuamba FT. The revised EMA guideline for the investigation of bioequivalence for immediate release oral formulations with systemic action. *J Pharm Pharm Sci*. 2012;15(3):376-88. doi: 10.18433/j3vc8j. PMID: 23148877 31. Musuamba FT, Mourad M, Haufroid V, De Meyer M, Capron A, Delattre IK, Verbeeck RK, Wallemacq P. Statistical tools for dose individualization of mycophenolic acid and tacrolimus co-administered during the first month after renal transplantation. *Br J Clin Pharmacol*. 2013 May;75(5):1277-88. doi: 10.1111/bcp.12007. PMID: 23072565. 32. Mardjuadi F, Medioni J, Kerger J, D'Hondt L, Canon JL, Duck L, Musuamba F, Oudard S, Clausse M, Moxhon A, Machiels JP. Phase I study of sorafenib in combination with docetaxel and prednisone in chemo-naïve patients with metastatic castration-resistant prostate cancer. *Cancer Chemother Pharmacol*. 2012 Aug;70(2):293-303. doi: 10.1007/s00280_012_1914_y. Epub 2012 Jul 1. PMID: 22752248 33. Michel Mourad, Christine Watremez, Antoine Buemi, Flora Musuamba, Jean-Louis Scholtes, Damiano Patrono, Marie-Agnès Docquier, Tom Darius and Fabienne Roelants. Feasibility of the Video-Assisted Thyroid Surgery Under Hypnosis Associated to local Anesthesia. *Surgical Research Updates*, 2014, 2, 1_5. DOI: http://dx.doi.org/10.12970/2311_9888.2014.02.01.1. 34. Mesia K, Tona L, Mampunza MM, Ntamabyaliro N, Muanda T, Muyembe T, Musuamba T, Mets T, Cimanga K, Totté J, Pieters L, Vlietinck AJ. Antimalarial efficacy of a quantified extract of *Nauclea pobeguinii* stem bark in human adult volunteers with diagnosed uncomplicated falciparum malaria. Part 2: a clinical phase IIB trial. *Planta Med*. 2012 Jun;78(9):853-60. doi: 10.1055/s_0031_1298488. Epub 2012 Apr 26. PMID: 22538476. 35. Delattre IK, Musuamba FT, Jacqmin P, Taccone FS, Laterre PF, Verbeeck RK, Jacobs F, Wallemacq P. Population pharmacokinetics of four beta-lactams in critically ill septic patients comedicated with amikacin. *Clin Biochem*. 2012 Jul;45(10_11):780-6. doi: 10.1016/j.clinbiochem.2012.03.030. Epub 2012 Apr 5. PMID: 22503878. 36. Musuamba FT, Mourad M, Haufroid V, Demeyer M, Capron A, Delattre IK, Delaruelle F, Wallemacq P, Verbeeck RK. A simultaneous d_optimal designed study for population pharmacokinetic analyses of mycophenolic Acid and tacrolimus early after renal transplantation. *J Clin Pharmacol*. 2012 Dec;52(12):1833-43. doi: 10.1177/0091270011423661. Epub 2011 Dec 29. PMID: 22207766 Clinical Trial. 37. Delattre IK, Musuamba FT, Nyberg J, Taccone FS, Laterre PF, Verbeeck RK, Jacobs F, Wallemacq PE. Population pharmacokinetic modeling and optimal sampling strategy for Bayesian estimation of amikacin exposure in critically ill septic patients. *Ther Drug Monit*. 2010 Dec;32(6):749-56. doi: 10.1097/FTD.0b013e3181f675c2. PMID: 20962708 38. Kabamba_Mukadi B, Duquenne A, Henrivaux P, Musuamba F, Ruelle J, Yombi JC, Bodéus M, Vandercam B, Goubau P. HIV_1 proviral resistance mutations: usefulness in clinical practice. *HIV Med*. 2010 Sep;11(8):483-92. doi: 10.1111/j.1468_1293.2009.00814.x. Epub 2010 Feb 16. PMID: 20163482 39. Delattre IK, Musuamba FT, Verbeeck RK, Dugernier T, Spapen H, Laterre PF, Wittebole X, Cumps J, Taccone FS, Vincent JL, Jacobs F, Wallemacq PE. Empirical models for dosage optimization of four beta-lactams in critically ill septic patients based on therapeutic drug monitoring of amikacin. *Clin Biochem*. 2010 Apr;43(6):589-98. doi: 10.1016/j.clinbiochem.2009.12.007. Epub 2009 Dec 28. PMID: 20036226 40. Musuamba FT, Mourad M, Haufroid V, Delattre IK, Verbeeck RK, Wallemacq P. Time of drug administration, CYP3A5 and ABCB1 genotypes, and analytical method influence tacrolimus pharmacokinetics: a population pharmacokinetic study. *Ther Drug Monit*. 2009 Dec;31(6):734-42. doi: 10.1097/FTD.0b013e3181bf8623. PMID: 19855314 41. Musuamba FT, Rousseau A, Bosmans JL, Senessaël JJ, Cumps J, Marquet P, Wallemacq P, Verbeeck RK. Limited sampling models and Bayesian estimation for mycophenolic acid area under the curve prediction in stable renal transplant patients co-medicated with ciclosporin or sirolimus. *Clin Pharmacokinet*. 2009;48(11):745-58. doi: 10.2165/11318060_000000000_00000.PMID: 19817503 42. Musuamba FT, M. Mourad M, Haufroid V, Bosmans JL, Sennesael JJ, Verbeeck RK, Wallemacq P. Predictive performances of different therapeutic drug monitoring approaches to assess tacrolimus and mycophenolic acid exposure. *Acta Clinica Belgica*. 2010 Mar; 65:31-37. 43. Verbeeck RK, Musuamba FT. Pharmacokinetics and dosage adjustment in patients with renal dysfunction. *Eur J Clin Pharmacol*. 2009 Aug;65(8):757-73. doi: 10.1007/s00228_009_0678_8. Epub 2009 Jun 20. PMID: 19543887 Review. 44. Capron A, Musuamba F, Latinne D, Mourad M, Lerut J, Haufroid V, Wallemacq PE. Validation of a liquid chromatography-mass spectrometric assay for tacrolimus in peripheral blood mononuclear cells. *Ther Drug Monit*. 2009 Apr;31(2):178-86. doi: 10.1097/FTD.0b013e3181905aaa. PMID: 19057467 45. Musuamba FT, Di Fazio V, Vanbinst R, Wallemacq P. A fast ultra-performance liquid chromatography method for simultaneous quantification of mycophenolic acid and its phenol- and acyl-glucuronides in human plasma. *Ther Drug Monit*. 2009 Feb;31(1):110-5. doi: 10.1097/FTD.0b013e318191897d.PMID: 19057465 46. Cimanga RK, Tona L, Luyindula N, Mesia K, Lusakibanza M, Musuamba FT, Apers S, De Bruyne T, Van Miert S, Hermans N, Totté J, Pieters L, Vlietinck AJ. In vitro antiparasmodial activity of callus culture extracts and fractions from fresh apical stems of *Phyllanthus niruri* L. (Euphorbiaceae): part 2. *J Ethnopharmacol*. 2004 Dec;95(2_3):399-404. doi: 10.1016/j.jep.2004.08.014.PMID: 15507366 47. Tona L, Cimanga RK, Mesia K, Musuamba FT, De Bruyne T, Apers S, Hermans N, Van Miert S, Pieters L, Totté J, Vlietinck AJ. In vitro antiparasmodial activity of extracts and fractions from seven medicinal plants used in the Democratic Republic of Congo. *J Ethnopharmacol*. 2004 Jul;93(1):27-32. doi: 10.1016/j.jep.2004.02.022. PMID: 15182900 B. Book chapters 48. Sofia Friberg Hietala, Efthymios Manolis and Flora Musuamba Tshinanu. A Regulatory View on Dose-Finding Studies and on the value of Dose-Exposure-Response analysis. Chapman & Hall/CRC Handbooks of Modern Statistical Methods. CRC Press. 2016. 49. Ine Skottheim Rusten, Anna Nordmark, Susan Cole, Joseph Standing, Sofia Friberg Hietala, Wei Zhao, Valeria Gigante, Anna Karin Hamberg, Gérard Pons, María Jesús Garrido, Johannes Taminiu, Norbert Benda, Frederike Lentz, Flora Musuamba Tshinanu, Efthymios Manolis. Scaling dose-exposure-response from adults to children and beyond. *Pediatric Clinical pharmacology*. CRC Press. 2015. 50. Flora Musuamba Tshinanu, Geneviève Ubeaud_Séquier, Florence Gattacceca. *Etudes pré-cliniques en pharmacocinétique*: les fondamentaux. Edimark. 2018. 51. Thémans P, Marquet P, Winkin JJ, Musuamba FT. Input-output approaches for personalized drug dosing of antibiotics: application to a pharmacokinetic model of meropenem. *Control theory in biomedical applications*. IFAC 2021

Projects EU STANDS4PM

Memberships

Other Relevant Information