

Geneva Switzerland IUPHAR Mentoring Center

Site

Clinical Pharmacology and Toxicology, Geneva University Hospitals, Geneva, Switzerland

Address

Rue Gabrielle-Perret-Gentil 4, 1211 Geneva 12, Switzerland

Contact

Dr Caroline Samer Caroline.Samer@hcuge.ch

Affiliations

- Department of Anesthesiology, Pharmacology and Intensive Care
- Clinical Trial Unit, Geneva University Hospitals
- Biomarker Translational Research Center, University of Geneva
- School of Pharmaceutical sciences, University of Geneva
- Swiss Center for Applied Human Toxicology

Key individuals (and expertise)

- Dr Marie Besson, psychopharmacology, pain
- Dr Youssef Daali, biomarkers, drug metabolism and transport, drug-drug interactions, in vitro models, PB-PK modeling, analytical chemistry, phenotyping
- Pr Jules Desmeules, clinical pharmacology, clinical trials, drug development, first-in-human studies, translational research
- Dr François Girardin, health technology assessment, pharmacoconomics
- Dr Roseline Ing, drug safety, TDM
- Dr Frédérique Rodieux, paediatric pharmacology
- Dr Victoria Rollason, pharmacovigilance, drug safety in pregnancy and breastfeeding
- Dr Caroline Samer, pharmacogenomics, personalized medicine, clinical toxicology/pharmacology

Research expertise

- Drug-drug interactions
- Pharmacogenomics and biomarkers
- Personalized medicine
- Clinical toxicology
- Paediatric pharmacology
- Psychopharmacology
- Drug safety in pregnancy and breastfeeding
- PB-PK modeling
- Clinical trials
- Education
- Phase I clinical trials and regulatory science in drug development
- Health technology assessment
- Translational research

Opportunities on offer

- Email/skype advice on general clinical pharmacology, paediatric pharmacology, and clinical toxicology incl training curriculum development, clinical activities and case discussion
- Email/skype advice on research in our areas of expertise

- Email/skype advice on clinical research study design
- Potential relevant collaborations in areas of mutual interest
- Willingness to host self-funded visitors/fellowships in areas of mutual interest

Selected publications

1. Samer CF, Ing Lorenzini K, Rollason V, Daali Y, Desmeules J. Application of CYP450 testing in the clinical setting. *Molecular Diagnosis and Therapy*. 2013;17(3):165-84.
2. Rodieux F, Vutskits L, Posfay-Barbe KM, Habre W, Piguët V, Desmeules JA, Samer CF. When the safe alternative is not that safe: tramadol prescribing in children. *Frontiers in Pharmacology*. 2018 Mar 5;9:148. doi: 10.3389/fphar.2018.00148. eCollection 2018.
3. Bosilkovska M, Samer CF, Déglon J, Rebsamen M, Staub C, Dayer P, Walder B, Desmeules JA, Daali Y. Geneva cocktail for cytochrome P450 and P-glycoprotein activity assessment using dried blood spot. *Clinical Pharmacology and Therapeutics*. 2014, 96(3):349-59.
4. Storelli F, Matthey A, Lenglet S, Thomas A, Desmeules J, Daali Y. Impact of CYP2D6 Functional Allelic Variations on Phenoconversion and Drug-Drug Interactions. *Clin Pharmacol Ther*. 2017 Sep 23. doi: 10.1002/cpt.889.
5. Samer CF, Daali Y, Wagner M, Hopfgartner G, Eap CB, Rebsamen M, Rossier MR, Hochstrasser D, Dayer P, Desmeules JA. Genetic polymorphisms and drug interactions modulating CYP2D6 and CYP3A activities have a major effect on oxycodone analgesic efficacy and safety. *British Journal of Pharmacology*. 2010, 160(4):919-30.
6. Marsousi N, Desmeules JA, Rudaz S, Daali Y. Usefulness of PBPK Modeling in Incorporation of Clinical Conditions in Personalized Medicine. *J Pharm Sci*. 2017 Sep;106(9):2380-2391.
7. Storelli F, Samer CF, Reny JL, Desmeules JA, Daali Y. Complex Drug-Drug-Gene-Disease Interactions involving Cytochromes P450: Systematic Review of Published Case Reports and Clinical Perspectives. *Clinical Pharmacokinetics*. 2018 April 17. doi: 10.1007/s40262-018-0650-9.
8. Marsousi N, Daali Y, Fontana P, Reny JL, Ancrenaz-Sirot V, Calmy A, Rudaz A, Desmeules JA, Samer CF. Impact of boosted antiretroviral therapy on the pharmacokinetics and efficacy of clopidogrel and prasugrel active metabolites. *Clinical Pharmacokinetics*. 2018 Feb 16. doi: 10.1007/s40262-018-0637-6.
9. Girardin FR, Poncet A, Perrier A, Vernaz N, Pletscher M, Samer C, Lieberman JA, Villard J. Cost-effectiveness of HLA-DQB1/HLA-B pharmacogenetic-guided treatment and blood monitoring in US patients taking clozapine. *Pharmacogenomics J*. 2018 Jan 3. doi: 10.1038/s41397-017-0004-2.
10. Marsousi N, Samer CF, Fontana P, Reny JL, Rudaz S, Desmeules JA, Daali Y. Co-administration of ticagrelor and ritonavir: Towards prospective dose adjustment using PBPK approach. *Clinical Pharmacology & Therapeutics*. 2016 Sep;100(3):295-304. doi: 10.1002/cpt.407.
11. Lloret-Linares C, Rollason V, Lorenzini KI, Samer CF, Daali Y, Gex-Fabry M, Aubry JM, Desmeules J, Besson M. Screening for genotyping and phenotyping variations in CYP activity in patients with therapeutic problems in a psychiatric setting, a retrospective study. *Pharmacological Research*. 2016 Jul 1. pii: S1043-6618(16)30637-5. doi: 10.1016/j.phrs.2016.07.002.
12. Jeanneret F, Boccard J, Badoud F, Sorg O, Pelclova D, Vlckova S, Rutledge DN, Samer CF, Hochstrasser D, Saurat JH, Rudaz S. Human urinary biomarkers of dioxin exposure: analysis by metabolomics and biologically-driven data dimensionality reduction. *Toxicology Letters* 2014. 30(2): 234-43
13. Daali Y, Samer C, Déglon J, Thomas A, Chabert J, Rebsamen M, Staub C, Dayer P, Desmeules J. Oral Flurbiprofen Metabolic Ratio Assessment Using a Single-Point Dried Blood Spot. *Clinical Pharmacology & Therapeutics*. 2012, 91(3):489-96.
14. Ing Lorenzini K, Lloret-Linares C, Desmeules J, Samer C. Drug absorption in patients with short bowel syndrome. *Nutr Clin Metab*. 2017doi.org/10.1016/j.nupar.2018.05.004

15. Rollason V, Samer CF, Daali Y, Desmeules JA. Prediction By Pharmacogenetics Of Safety And Efficacy Of Non-Steroidal Anti-Inflammatory Drugs: A Review. *Current Drug Metabolism*, 2014, 15(3): 326-43.
16. Girardin FR, Poncet A, Blondon M, Rollason V, Vernaz N, Chalandon Y, Dayer P, Combesure C. Monitoring white blood cell count in adult patients with schizophrenia who are taking clozapine: a cost-effectiveness analysis. *Lancet Psychiatry*. 2014 Jun;1(1):55-62.
17. Girardin FR, Gex-Fabry M, Berney P, Shah D, Gaspoz JM, Dayer P. Drug-induced long QT in adult psychiatric inpatients: the 5-year cross-sectional ECG Screening Outcome in Psychiatry study. *Am J Psychiatry*. 2013 Dec;170(12):1468-76.
18. Lloret-Linares C, Bosilkovska M, Daali Y, Gex-Fabry M, Heron K, Bancila V, Michalopoulos G, Perroud N, Richard-Lepouriel H, Aubry JM, Desmeules J, Besson M. Phenotypic Assessment of Drug Metabolic Pathways and P-Glycoprotein in Patients Treated With Antidepressants in an Ambulatory Setting. *J Clin Psychiatry*. 2018 Mar/Apr;79(2). pii: 16m11387. doi: 10.4088/JCP.16m11387.
19. Ralvenius WT, Acuña MA, Benke D, Matthey A, Daali Y, Rudolph U, Desmeules J, Zeilhofer HU, Besson M. The clobazam metabolite N-desmethyl clobazam is an α 2 preferring benzodiazepine with an improved therapeutic window for antihyperalgesia. *Neuropharmacology*. 2016 Oct;109:366-375.