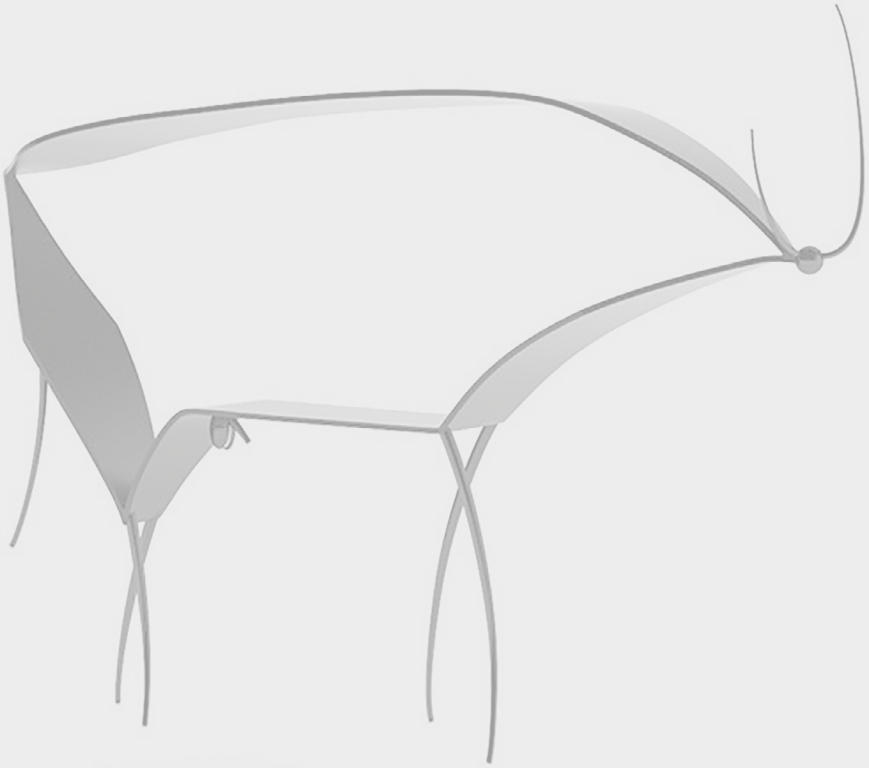
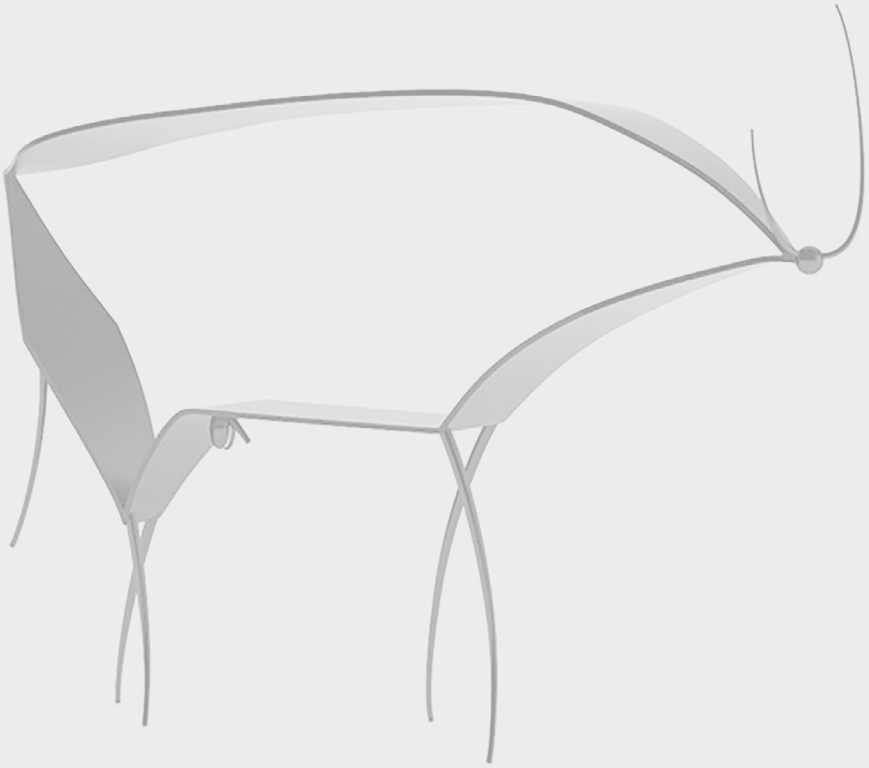
Dynamics of the renin-angiotensin aldosterone system in dogs: circadian variations in physiological conditions and in relation to angiotensin-converting enzyme inhibition

Mochel, J.P.



Curriculum Vitae

Jonathan Mochel was born on March 30 1983 in Antibes Juan-les-Pins (France). He obtained his Veterinary Medical Degree from the National Veterinary School of Toulouse in 2006. In 2007, Jonathan completed his Doctorate studying Neurosciences in collaboration with the College de France (Paris), and received the Silver Medal from the National Veterinary School of Maisons-Alfort for his work. During his veterinary undergraduate studies Jonathan also obtained a Masters in Pharmacology and Pharmacokinetics (2005), and a Masters in Infectious Diseases (2006) from the University of Toulouse. Following a 2-year Medical Internship in Veterinary Medicine and Surgery at Maisons-Alfort (2006-2008), Jonathan got a Master of Science (MSc) in Pharmacology and Pharmacokinetics from the University of Toulouse in 2009. He then pursued a 4-year Specialization program in Pharmacology and Toxicology (European Board, http://ecvpt.org/) and earned his title of European Specialist in Veterinary Pharmacology and Toxicology in 2013. In 2010, Jonathan started a PhD at Leiden University under supervision of Pr. Meindert Danhof (Promotor), whose focus was on the modeling of the dynamics of the renin-angiotensin aldosterone system (RAAS) in dogs. In 2012, he founded the Animal Health Modeling & Simulation (AHM&S) Society, together with Pr. Johan Gabrielsson (University of Agricultural Sciences, Uppsala, Sweden), and Pr. Jim Riviere (Kansas State University, USA), which aims at promoting the development, application, and dissemination of Modeling and Simulation techniques in the field of Veterinary Sciences (http://www.ahmss.com/). Since joining Novartis Pharmaceuticals in 2013, Jonathan has been working as a Senior Pharmacology Modeler in the Modeling and Simulation group formed by Dr. Donald Stanski.



List of Publications

LIST OF PUBLICATIONS: RESEARCH PAPERS

Mochel JP and Danhof M. Physiology and modulation of the renin-angiotensin aldosterone system in dogs: What have we learnt? *Submitted* in Reviews of Physiology, Biochemistry and Pharmacology.

Bieth B, Balser S, Heimann G, **Mochel J**, Hamrén B, Demin I, Mentre F, Renard D. Model Averaging For Longitudinal Response Data: A Case Study For Biosimilar Development In Rheumatoid Arthritis. *Submitted* in Statistics in Medicine.

Mochel JP, Fink M, Peyrou M, Soubret A, Giraudel J, Danhof M. Pharmacokinetic/ Pharmacodynamic modeling of renin-angiotensin aldosterone biomarkers following angiotensin-converting enzyme (ACE) inhibition therapy with benazepril in dogs. Pharm Res. 2014. DOI: 10.1007/s11095-014-1587-9.

Mochel JP, Fink M, Bon C, Peyrou M, Bieth B, Desevaux C, Deurinck M, Giraudel JM, Danhof M. Influence of feeding schedules on the chronobiology of renin activity, urinary electrolytes and blood pressure in dogs. Chronobiol Int. 2014;31(5):715-30.

Mochel JP, Fink M, Peyrou M, Desevaux C, Deurinck M, Giraudel JM, Danhof M. Chronobiology of the renin-angiotensin-aldosterone system in dogs: relation to blood pressure and renal physiology. Chronobiol Int. 2013;30(9):1144-59.

Fink M, Letellier I, Peyrou M, **Mochel JP**, Jung M, King JN, Gruet P, Giraudel JM. Population pharmacokinetic analysis of blood concentrations of robenacoxib in dogs with osteoarthritis. Res Vet Sci. 2013;95(2):580-7.

Mochel JP, Gabrielsson J, Collard W, Fink M, Gehring R, Laffont C, Liu Y, Martin-Jimenez T, Pelligand L, Steimer JL, Toutain PL, Whittem T, Riviere J. Animal Health Modeling & Simulation Society: a new society promoting model-based approaches in veterinary pharmacology. J Vet Pharmacol Ther. 2013;36(5):417-19.

Mochel JP, Peyrou M, Fink M, Strehlau G, Mohamed R, Giraudel JM, Ploeger B, Danhof M. Capturing the dynamics of systemic Renin-Angiotensin-Aldosterone System (RAAS) peptides heightens the understanding of the effect of benazepril in dogs. J Vet Pharmacol Ther. 2013;36(2):174-80.

Mochel JP, Fink M. Response to letter from Atkins et al. J Vet Pharmacol Ther. 2012;35(5):516-518.

LIST OF PUBLICATIONS: ABSTRACTS

Mochel JP, Burkey B, Fink M, Garcia R, Peyrou M, Giraudel J, Renard D, Danhof M. First-in-class Angiotensin Receptor Neprilysin Inhibitor LCZ696 modulates the dynamics of the renin cascade and natriuretic peptides system with significant reduction of aldosterone exposure. J Am Coll Cardiol. 2014;63(12_S).

Fink M, **Mochel JP**, Gabrielsson J, Collard W, Gehring R, Laffont C, Liu Y, Martin-Jimenez T, Pelligand L, Steimer JL, Toutain PL, Whittem T, Riviere J. Animal Health Modeling & Simulation Society (AHM&S): A new society promoting model-based approaches for a better integration and understanding of quantitative pharmacology in Veterinary Sciences. 22nd International Conference of the Population Approach Group in Europe_ PAGE 22 (2013) Abstr 2849.

Mochel J, Fink M, Peyrou M, Desevaux C, Deurinck M, Danhof M. Capturing the diurnal changes in renin activity and blood pressure to streamline drug therapy of RAAS-related disorders in dogs. J Vet Pharmacol Ther. 2012; 35(3_S).

Mochel J, Fink M, Peyrou M, Giraudel J, Danhof M. Population PK/PD modeling of benazepril-induced RAAS inhibition using nonlinear mixed effects. J Vet Pharmacol Ther. 2012;35(3_S).

Mochel J, Fink M, Peyrou M, Giraudel J, Danhof M. Using nonlinear mixed effects modeling to characterize the pharmacokinetics and pharmacodynamics of benazepril in dogs. 21st International Conference of the Population Approach Group in Europe_ PAGE 21 (2012) Abstr 2352.

Mochel J, Strehlau G, Mohamed R, Peyrou M. Dynamics of the Renin-Angiotensin Aldosterone System (RAAS) after oral administration of benazepril in dogs. J Vet Intern Med. 2011;25:632–767.