Gabriel Wittum, Pharmaceut Anal Acta 2014, 5:3
http://dx.doi.org/10.4172/2153-2435.S1.020

OMICS Group Conferences
Accelerating Scientific Discovery

4th International Conference and Exhibition on
Pharmaceutics & Novel Drug Delivery Systems
March 24-26, 2014 Hilton San Antonio Airport, San Antonio, USA

In silico modeling penetration of xenobiotics through human skin

Gabriel Wittum
Universität Frankfurt, Germany

Skin is the largest organ of our body. In particular, it is the barrier protecting the body from the uncontrolled penetration of alien substances. Originating in pharmacy, quantitative understanding of the barrier function of human skin becomes more and more crucial for several aspects of medicine. In this context, mathematical models including detailed cellular and subcellular structures are devleoped. To treat problems of this complexity, novel mathematical models, methods and software tools are necessary. In recent years, such models, numerical methods and tools have been developed, allowing to attack these problems. In the talk, we present such models, discuss some of the major challenges of the problem and show the impact of the simulation results on the understanding w.r.t. penetration of xenobiotics through human skin.

wittum@techsim.org