



## **supervision**

**Stephan Menz**

### **Hybrid Stochastic-Deterministic Approaches for the Simulation and Analysis of Biochemical Reaction Networks**

PhD thesis, FU Berlin, Decembre 2012, jointly with Prof. Christof Schütte (FU Berlin)

**Fanny Wegner**

### **A stochastic model of the cell movement of Dictyostelium discoideum in the absence of external cues**

Master thesis, Institut für Biochemie und Biologie. Universität Potsdam, Dezember 2012, jointly with Prof. Carsten Beta.

**Sophie Schneider**

### **Covariate modeling in population pharmacokinetics: comparing the classical covariate screening approach to a new physiologically-based approach exemplified for Tobramycin**

Master thesis, Institut für Biochemie und Biologie. Universität Potsdam, Dezember 2012.

**Karsten Sillow**

### **Der thermodynamische Limes von Reaktionssystemen**

Diploma thesis, Universitaet Potsdam, December 2011.

**Sabine Pilari**

### **Novel Approaches to Mechanistic Pharmacokinetic/Pharmacodynamic Modeling**

PhD thesis, FU Berlin, April 2011.

**Ben-Fillippo Krippendorff**

### **Integrating Cell-level Kinetic Modeling into the Optimization of Cancer Therapeutics**

Ph.D. Thesis, National University of Ireland, Maynooth, Apr 2010.

**Max von Kleist**



**Combining Pharmacology and Mutational Dynamics to Understand and Combat Drug Resistance in HIV**

Ph.D. Thesis, National University of Ireland, Maynooth, Dec 2009.

**Andrea Y. Weisse**

**Global Sensitivity Analysis of Ordinary Differential Equations**

PhD thesis, FU Berlin, July 2009.

**Stephan Menz**

**Understanding Differences between Stochastic and Deterministic Models of Chemical Reaction Networks**

Master thesis, FU Berlin, August 2008.

**Sabine Pilari**

**Influence of the Dynamics of IKK Activation and Inactivation on the NF $\kappa$ B Signaling Pathway**

Master thesis, FU Berlin, March 2008.

**Wai-Cheung Ng**

**Entwicklung eines PBPK-Modells zur Analyse der nichtlinearen Pharmakokinetik von Compound B**

Bachelor thesis, FU Berlin, August 2006, jointly with M. Schultze-Mosgau (Schering AG, Berlin)

**Sabine Pilari**

**Entwicklung eines physiologie-basierten Pharmakokinetikmodells zur Untersuchung des Einflusses einer erhöhten Konzentration an Sexualhormonbindendem Globulin auf die Pharmakokinetiken von Compound A**

Bachelor thesis, FU Berlin, August 2006, jointly with C. Klein (Schering AG, Berlin).

**Max von Kleist**

**A Generic Physiologically Based Pharmacokinetic Model to Predict Drug Distribution in Plasma, Red Blood Cells, Interstitial and Cellular Space with Application to the Pharmacokinetics of Tolbutamide**



M.Sc. Thesis, Freie Universität Berlin, 2005.

**Sebastian Ueckert**

**Entwicklung eines PBPK-Modells zur Beschreibung der Akkumulation von Folaten in Erythrozyten**

Bachelor thesis, FU Berlin, August 2006, jointly with S. Reif (Schering AG, Berlin).

**Ben-Fillippo Krippendorff**

**In-silico Modellierung der Cytochrom-P450 Kinetik zur Analyse von CYP-Inhibitionsassays**

Bachelor thesis, FU Berlin, September 2005, jointly with A. Reichel (Schering AG, Berlin).

**Reiner Matthiesen**

**Mathematische Modellierung der Regulation der Flagellensynthese bei Escherichia coli**

Diploma thesis, FU Berlin, September 2004, jointly with Prof. R. Hengge.

**Stephan Menz**

**Vergleich einer deterministischen und stochastischen Modellierung der HOG-Signalweges von S. cerevisiae zur Simulation eines hyperosmotischen Schocks**

Bachelor thesis, FU Berlin, September 2004, jointly with Dr. E. Klipp.

**Christof Dehmel**

**Exakte stochastische Simulation der Genexpression bei hyperosmotischen Schockzuständen in Saccharomyces cerevisiae**

Bachelor thesis, FU Berlin, September 2004, jointly with Dr. E. Klipp.

**Ralf Forster**

**Ein Algorithmus zur Berechnung invarianter Dichten in metastabilen Systemen**

Diploma thesis, FU Berlin, September 2003, jointly with Prof. Ch. Schütte.

**Philipp Heidborn**



**A Reduced Space Hybrid Monte Carlo method in the context of Molecular Dynamics**

Diploma thesis, FU Berlin, August 2003, jointly with A. Fischer and Prof. Ch. Schütte

**Mario Meier**

**Ein Vergleich zweier auf der Eigenraumstruktur basierender Cluster-Algorithmen zur Identifikation metastabiler Mengen**

Diploma thesis, FU Berlin, März 2003, jointly with A. Fischer and Prof. Ch. Schütte

**Jessica Walter**

**Metastability of highly oscillatory Hamiltonian systems**

Diploma thesis, FU Berlin, February 2002, jointly with Prof. Ch. Schütte.

**Sönke Lorenz**

**Asymptotic behavior of perturbed dynamical systems in the context of modeling biomolecules**

Diploma thesis, FU Berlin, September 2001, jointly with Prof. Ch. Schütte.