

CURRICULUM VITAE  
Jürgen Bernd Bulitta, Ph.D.

<b>Since July 2015</b>	<b>Associate Professor</b> , Pre-eminence Position in Drug Discovery & Development, Center for Pharmacometrics and Systems Pharmacology Department of Pharmaceutics, College of Pharmacy, University of Florida
August 2011 to April 2015	<b>Senior Research Fellow</b> , Faculty of Pharmacy and Pharmaceutical Sciences, Monash University, Melbourne, Australia
Mar to April 2015	<b>NHMRC Career Development Fellow</b> (CDF level 2, mid-career K-award)
Feb 2012 - Feb 2015	<b>ARC Discovery Early Career Researcher Award</b> (DECRA) Fellow
March 2009 to July 2011	<b>Senior Scientist</b> , Ordway Research Institute, Albany, NY
August 2006 to March 2009	<b>Post-doctoral</b> fellowship in pharmacometrics in infectious diseases, School of Pharmacy and Pharmaceutical sciences, SUNY Buffalo, NY (advisors: Drs William Jusko and Alan Forrest)
<b>Education</b>	
February 2008	One-week academic visit on Bayesian population modeling and population optimal design, with Dr Stephen Duffull, Dunedin, New Zealand
July & Nov 2007	3 weeks visits at the Laboratory for Applied Pharmacokinetics (LAPK) on non-parametric population modeling, Drs. Jelliffe & Schumitzky, Los Angeles, CA
November 2003 to September 2006	<b>Ph.D. thesis</b> at the Institute for Biomedical and Pharmaceutical Research (IBMP) in Nürnberg-Heroldsberg, Germany, and at the Julius-Maximilians-Universität Würzburg, Würzburg, Germany: "Innovative techniques for selecting the dose of antibiotics in empiric therapy – focus on $\beta$ -lactams and cystic fibrosis patients"
July 2005 to January 2006	Internship in nonparametric population pharmacokinetic data analysis at the Ordway Research Institute, Albany, NY (advisor: Dr George Drusano)
January 2005 to June 2005	Internship in modeling, simulations and meta-analyses of pharmacokinetic and pharmacodynamic data at the Univ. of Queensland, Brisbane, Australia
October 2004 to January 2005	Internship in population pharmacokinetics and pharmacodynamics with NONMEM, University of Auckland, New Zealand (advisor: Dr Nick Holford)
October 1999 to October 2003	<b>Chemistry studies:</b> Friedrich-Alexander-Univ., Erlangen-Nürnberg, Germany Diploma work in computational chemistry & internship in theoretical chemistry Graduation with <b>diploma degree</b> (comparable to M.Sc. degree) Study focus: Inorganic, physical, organic, solid state, analytical, <u>computational and theoretical chemistry</u> ; Minor subject: <u>Microbiology</u> Internship (6 months, part time) in theoretical chemistry
March '03 to Oct. 2003	Diploma work in <b>computational chemistry</b> : "Correlation of quantum mechanics and pharmacokinetics"
1986 - 1998	Primary School and Lyceum, Scheinfeld, Bavaria, Germany
<b>Work experience</b>	
April-October 2008	Core organization team, 2 <sup>nd</sup> World Conference on Magic Bullets (Ehrlich II) in Nürnberg, Germany, (2000 participants, 100 countries, <a href="http://www.ehrlich-2008.org">www.ehrlich-2008.org</a> )
July 1998 to August 2006	Scientific co-worker, Institute for Biomedical & Pharmaceutical Research, Nürnberg, Germany; Participation in <u>~95 clinical studies</u> as pharmacokineticist, clinical writer, phase I/IV study coordinator, clinical monitor & biostatistician
February-Sept. 2004	Member of the core organization team of the World-Conference on Antiinfectives – Dosing the Magic Bullets in Nürnberg, Germany (~2,000 participants from 84 countries, <a href="http://www.ehrlich2004.org">www.ehrlich2004.org</a> )
January 2001	Co-worker at the IBMP preparing for an FDA audit on several clinical trials
July 1998 to Sept. 99	Civilian service at the Martha-Maria Nursing Home, Nürnberg, Germany
April 1995	Two-week work experience in geological sciences, Billingshurst, UK

**Teaching:**

*Full courses:* **Translational Clinical Pharmacology**, PK/PD, Berkeley Madonna, S-ADAPT, WinNonlin, NONMEM, NPAG, Principles of automated handling & Analysis of BIG Data

*Lectures taught:* *In vitro / in vivo* correlations  
Bioavailability and bioequivalence studies  
Pharmacokinetic and pharmacodynamic principles  
Optimizing anti-infective therapy (incl. lect. at **NIH/NIAID**)  
*In vitro* & animal infection models (incl. lect. at **NIH/NIAID**)  
Strategies to prevent bacterial resistance  
Population pharmacokinetic & pharmacodynamic modeling  
Optimal design of *in vitro*, animal and clinical studies  
Engaging in scientific discussions; Career development

*Laboratory and clinical studies training:* Basic and advanced lab techniques (incl. aseptic handling)  
Dynamic *in vitro* infection models (incl. fluid dynamics)  
Biosafety procedures; coordination of clinical studies  
Clinical trial monitoring; systematic literature searches

**Mentoring:** Primary supervisor or co-supervisor of 11 PhD students (5 completed)  
Mentoring an award-winning Honors project (at Buffalo) and 1 MSc student  
Mentoring >15 postdocs (formal or informal) and >25 PhD students (informal)  
Mentoring of 25 summer research and 5 systematic literature review projects  
Mentoring or co-mentoring of five junior research projects

**Leadership & Service:** **UF College of Pharmacy Admissions Committee** (since 09/2016)  
Co-Leader of the MIPS Early Career Researcher Committee at Monash  
Co-president of the SUNY Buffalo Post-Doctoral Association  
**Editorial Board Member** of Antimicrob Agents Chemother since 01/2009  
Reviewer for over 20 journals (including **Nature**) since 2003  
Reviewer for **NHMRC** (= Australian NIH), **ARC** (=Australian NSF),  
**Wellcome Trust**, Singaporean Government  
Training, direction, and supervision of staff members

**Communication:** Responsible for advertising two international conferences via electronic media, fax and print media; responsible for PowerPoint presentations (up to 20 in parallel)

**Languages:** German (native), English (excellent), Latin (5 years at school)

**Clinical studies:** Work as clinical monitor of phase I/IV trials (for 5 years), work as co-study coordinator at the clinical site (2 studies), coordination and shipment of clinical materials for phase I/IV studies (responsible position for 3.5 years)

**Report writing:** Primary author of 32 full industry pharmacokinetic / pharmacodynamic modeling reports and preparation of PowerPoint presentations for Industry  
Writing protocols for regulatory submissions and Ethics committees (35 protocols) and clinical study reports (2 Phase I/IV studies; 8 years experience)

**Software:**

*Creator & Author:* SADAPT-TRAN

*Excellent in:* MS Word / EXCEL / PowerPoint / Outlook, Endnote, SigmaPlot, S-ADAPT, Phoenix / WinNonlin, NONMEM, Berkeley Madonna, and Pmetrics

*Advanced in:* MS Project, WinBUGS, Adapt V, Kinetica, Monolix

*Intermediate in:* Clinical Trial Simulator, WinPOPT & POPT, WinNonmix, Maple, acsIXtreme, QSAR & computational chemistry software (incl. Material Studio, SIMCA-P, VAMP), ChemOffice, statistical packages, S-PLUS  
graphical editing (Photoshop) and printing software  
Experience in software qualification & validation for an FDA audit.

**Programming skills:** Perl (expert), Fortran (advanced), Reverse Coding (advanced), AWK (beginner), PHP & MySQL & Basic (beginner), Turbo-Pascal (beginner).

**Hobbies:** Playing the piano, sports (table tennis, volleyball, jogging, swimming)

## AWARDS

October 2014	Australian National Health and Medical Research Council (NHMRC) Career Development Fellow (level II). This award was 1 of 23 fellowships at this level across all biomedical disciplines in Australia in 2015.
December 2012	ASCEPT Denis Wade Johnson & Johnson New Investigators Award
November 2011	Australian Research Council (ARC) Discovery Early Career Researcher Award of a 3-year Fellowship
May 2011	Giorgio Segré Prize 2010 for distinct contributions in the field of pharmacokinetics and pharmacodynamics awarded by the European Federation for Pharmaceutical Sciences (EUFEPS)
January 2009	Editorial Board Member of Antimicrobial Agents and Chemotherapy at an age of less than 30 years
August 2008	ICAAC ID Fellows Grant at the 48th Annual ICAAC/46th IDSA Annual Meeting in Washington, DC, American Society for Microbiology, October 25 - 28, 2008
June 2008	Best UB fellow research presentation at the Fellow Research Presentation Day (June 2, 2008) of the School of Pharmacy, SUNY Buffalo, NY
March 2008	"Outstanding Modeling and Simulation Abstract Award" of the American Conference on Pharmacometrics (ACoP), Tucson, AZ
September 2007	Award of Best Fellow Presentation at the post-ICAAC meeting of the International Society of Anti-Infective Pharmacology (ISAP) in Chicago, IL
July 2007	Prize for the best PhD thesis ("Fakultätspreis") in the year 2006/07 from the Institute of Chemistry and Pharmacy ("Fakultät für Chemie und Pharmazie") at the Univ. of Würzburg ("Julius-Maximilians-Univ. zu Würzburg"), Germany
June 2007	Best UB fellow research presentation at the Fellow Research Presentation Day (June 8, 2007) of the School of Pharmacy, SUNY Buffalo, NY
September 2006	George McCracken Infectious Diseases Fellow Award for the 46 <sup>th</sup> Interscience Conference on Antimicrobial Agents and Chemotherapy in San Francisco, CA
June 2006	Award for student participation at the 56th Meeting of Nobel Laureates (18th Lindau meeting in chemistry) in Lindau, Germany (500 of ca. 11,000 students worldwide were allowed to participate)
February 2003	Award for fastest studies in chemistry at the Friedrich-Alexander University, Erlangen-Nürnberg, Germany, since more than a decade
May 2002	Award of membership and scholarship of the German National Academic Foundation ("Studienstiftung des Deutschen Volkes")
April 1999	Invited post-graduate course instructor at the Department of Clinical Pharmacology, University of Cologne, Germany. 4-h lecture on: Introduction into pharmacokinetics, pharmacodynamics and in-vitro/in-vivo correlations using WinNonlin® Professional. Awarded youngest instructor ever.
October 1998	Invited "Young Scientist" speaker at the "90-years anniversary of the Nobel-Prize honoring to Paul Ehrlich" organized by the Paul-Ehrlich Society; Frankfurt/Main, Germany; October 24, 1998.
July 1998	Scholarship from the State of Bavaria, Germany, for highly talented students
July 1998	Best secondary school qualification at the Lyceum Scheinfeld 1998 and best qualification in chemistry
February 1998	"Jugend forscht" (Junior Scientific Competition in Germany): First prize in chemistry (regional competition): "PKPD modeling: Selection of resistant mutants of <i>Staphylococcus epidermidis</i> due to quinolone exposure in sweat"

## RESEARCH GRANTS

### ONGOING PROJECTS

#### New Projects Awarded In 2017:

1. Brown AN (PI), **Bulitta JB (Co-I)**, Lednicky J (Co-I)  
Identification of antiviral therapies for the treatment of Zika virus using existing drugs  
7ZK30, Florida Department of Health, 02/2017 – 01/2020, \$1,141k.
2. **Bulitta JB (PI)**, Shin BS (Co-PI), Kim TH (Co-I), Moya B (Co-I), Jiao Y (Co-I)  
Supporting the rational development of a generic formulation by pharmacokinetic data analyses and simulations  
International pharmaceutical industry, 03/2017 – 05/2017, \$13k.
3. **Bulitta JB (PI)**, Shin BS (Co-PI), Kim TH (Co-I), Moya B (Co-I), Jiao Y (Co-I)  
Pharmacokinetic optimization of a new platelet aggregation inhibitor  
International pharmaceutical industry, 03/2017 – 05/2017, \$9k.

#### New Projects Awarded In 2016:

4. **Bulitta JB (PI)**, Hochhaus G (Co-PI), Price R, (Co-I), Shur S, (Co-I)  
Pharmacokinetic Comparison of Locally Acting Orally Inhaled Drug Products  
HHSF223201610099C / P0018237, Food and Drug Administration (FDA), 09/2016 – 09/2017, \$729k.
5. Landersdorfer CB (CIA), Boyce JD (CIB), **Bulitta JB (CIC)**, Oliver A, Nation RL, Peleg A (AI)  
Targeting hypermutable 'superbugs' in chronic respiratory infections by optimised antibiotic combination dosage regimens  
APP1101553, Australian National Health and Medical Research Council (**NHMRC**) Project grant, 01/2016 – 12/2018, \$698k (AUD); similar to an **R01**.
6. Hochhaus G (PI), **Bulitta JB (Co-PI)**  
Comprehensive evaluation of formulation effects on metered dose inhaler performance  
5U01FD004943-06, Food and Drug Administration (FDA), 09/2016 – 08/2017, \$200k.

#### New Projects Awarded In 2015:

7. Boyce J, **Bulitta JB**, Seemann T  
Unravelling small RNA regulatory networks to target and control bacteria  
Australian Research Council (**ARC**) Discovery Project, DP150103715, 1/2015 – 12/2017, \$454k (AUD); similar to an **R01**.

**Goals:** This project is a collaboration with members of the Australian Research Council (ARC) Centre of Excellence in Structural and Functional Microbial Genomics. I am leading the development of systems-biology models for bacterial sRNA regulatory networks. I will employ a funnelling approach with three, increasingly-mechanistic modelling approaches to obtain a global and mechanistic understanding of sRNA regulatory networks. These systems-biology models will identify the crucial components of the sRNA regulatory network that are the most promising targets to control bacterial phenotypes. These data will inform the design of new inhibitors.

### **New Projects Awarded In 2014:**

8. Tsuji BT (PD/PI), Li J (PD/PI), Walsh TJ, Forrest A, Nation RL, **Bulitta JB (Co-I)**, Boyce JD, Petraitis V, Landersdorfer CB

Novel PK/PD Strategies for Polymyxin Combinations against Gram-negative Superbugs

National Institutes of Health, **NIH / NIAID**, 1R01AI111990-01

3/01/2014 – 2/28/2019, \$4,451k (USD)

**Goals:** This grant seeks to optimize novel polymyxin-based combination dosage regimens against Gram-negative superbugs. I am leading the mechanism-based modelling analysis and the integration of transcriptomic and genomic data for this project.

9. Roberts JA (CIA), Kirkpatrick CM (CIB), Lipman J (CIC), Landersdorfer CB (CID), **Bulitta JB (CIE)**, Bergen PJ (CIF). Dosing to maximise bacterial killing and prevent resistance in ICU

APP1062040, Australian National Health and Medical Research Council (**NHMRC**) Project grant,

01/2014 – 12/2017, \$802k (AUD); similar to an **R01**.

### **New Projects Awarded In 2013 or earlier:**

10. Hochhaus G (PI), **Bulitta JB (Co-I)**, Hindle M, (Co-I), Longest W (Co-I), Price R (Co-I), Shur S (Co-I), Hendeles L (Co-I), Alu-Hassan (Co-I), Tang Y (Co-I)

Study to investigate the sensitivity of pharmacokinetics in detecting differences in physicochemical properties of the active in suspension nasal products for local action

HHSF223201310220C / PJ 00111118, Food and Drug Administration (FDA), 09/2013 – 11/2017, \$1,418k.

11. Ma Q (PI), **Bulitta JB (Co-Mentor on population modeling)**

Antiretroviral pharmacogenomics, pharmacokinetics and toxicity in neuroAIDS

National Institutes of Health, **NIH / NIMH**, 5K08MH098794

07/01/2012 – 06/31/2017, \$599k (USD)

### **GRANT APPLICATIONS – UNDER REVIEW**

**Bulitta JB (PI)**, Louie A (Co-I), Boyce JD (Co-I), Bonomo R (Co-I), Drusano GL (Co-I)

Next-generation combination dosing strategies to combat resistant *Acinetobacter baumannii*

National Institutes of Health, **NIH / NIAID**, 1R01AI130185-01,

12/01/2017 – 11/30/2022, \$3.5M

**Bulitta JB (PI)**, Hochhaus G (Co-PI), Price R (Co-I), Shur S (Co-I)

Study to investigate the sensitivity of pharmacokinetics in detecting differences in physicochemical properties of the active in suspension nasal products for local action

Food and Drug Administration, **FDA-SOL-1120918**

6/01/2017 – 5/31/2018, \$640k.

Luna BM (PI), Spellberg B, **Bulitta JB (Subaward PI)**, Louie A, Drusano GL, and Robert Bonomo

A Preclinical Mouse Model of *Acinetobacter baumannii* Infection For Antibacterial Development

Food and Drug Administration, **FDABAA-17-00123**

10/01/2017 – 9/30/2020, \$1,991k.

## COMPLETED PROJECTS

### New Projects Awarded In 2014:

#### 12. Bulitta JB (PI)

Targeting bacterial 'superbugs' by innovative combination dosing strategies and new antibiotics  
APP1084163, Australian National Health and Medical Research Council (NHMRC)

Career development fellowship (CDF) Level 2

01/2015 – 12/2018 (this Australia-based award had to be resigned on 04/30/2015 due to Dr. Bulitta's move to the Univ. of Florida), \$455k (AUD); equivalent to a **mid-career K-award** (7-12 years post PhD).

**Goals:** This project seeks to develop novel combination dosing strategies and new antibiotics inhibiting cell-wall synthesis. Based on our NHMRC grant (PI Bulitta, 2013-2015) on *P. aeruginosa*, we will exploit our unique insights on synergistic penicillin-binding protein occupancy patterns to inhibit these targets via novel chemotypes.

#### 13. Bulitta JB (CIA = PI, Monash), Landersdorfer CB (CIB, Monash), Paik SH (CIC, Boryung Pharmaceuticals), Shin S (CID, Wonkwang University)

Optimising the efficacy and safety of fimasartan by translational, mechanism-based modelling

National Research Foundation of S. Korea

01/2014 – 12/2014, \$150k (AUD)

#### 14. Porter C (CI), McIntosh M (CI), Kaminskas L (CI), Bulitta JB (CI), Keller G (PI)

Perturbation of the extracellular architecture to promote the absorption and lymphatic transport of biological macromolecules

Australian Research Council (ARC) Linkage grant, LP140100377, 7/2014 – 6/2017, \$409k (AUD)

### New Projects Awarded In 2013:

#### 15. Bulitta JB (CIA, PI), Oliver A (CIB), Landersdorfer CB (CIC), Velkov T (CID), Nation RL (CIE), Boyce JD (CIF), Kirkpatrick CM (CIG)

Combating bacterial 'superbugs' by innovative dosing strategies that combine available antibiotics to prevent resistance. APP1045105, Australian National Health and Medical Research Council (NHMRC) Project grant, 01/2013 – 06/2016, \$530k (AUD); similar to an **R01**.

**Goals:** This project has elucidated the mechanistic basis for synergy of multi  $\beta$ -lactam antibiotic combinations to combat highly  $\beta$ -lactam-resistant *P. aeruginosa*. Informed by novel mechanism-based, systems pharmacology models, my group has identified the optimal combination of target enzymes and the extent of target inhibition required for synergistic killing and resistance prevention of highly  $\beta$ -lactam-resistant *P. aeruginosa*.

#### 16. Kaminskas L (CIA), Bulitta JB (CIB), Porter C (CIC)

Optimising the therapeutic efficacy of protein-based drugs against lymph-resident diseases

APP1044802, Australian National Health and Medical Research Council (NHMRC) Project grant,

01/2013 – 06/2016, \$336k (AUD); similar to an **R01**.

#### 17. Bulitta JB, Landersdorfer CB, Li J, Bergen PJ, Nation RL

Collier Charitable Fund 2012 Round, Equipment support

01/2013 – 12/2013, \$9k (AUD)

#### 18. Sloan EK, Bunnett NW, Sexton PM, Halls M, Li J, Bulitta JB, Canals M, Graham B, Lane JR, Scammalls P, Porter CJ, Nowell CJ

National Health and Medical Research Council (NHMRC) Equipment grant (No. 9000179)

12/2013, \$45k (AUD)

#### 19. Bulitta JB (PI), Landersdorfer CB (Co-PI)

Innovative experimental and mechanism-based mathematical modelling approaches to understand and optimize innovative antibiotic combination regimens

International Pharmaceutical Industry

03/2013 – 07/2013, \$136k (AUD)

20. **Bulitta JB (CI, PI)**

2012 Monash Researcher Accelerator Program  
01/2013 – 12/2014, \$89k (AUD)

21. **Bulitta JB (CIA, PI)**, Tsuji BT (CIB), Harper M (CIC), Landersdorfer (CID)

Novel antibiotic dosing strategies to spare carbapenems against community-acquired infections  
06/2013 – 02/2014, \$20k (AUD)

22. Landersdorfer CB (CIA), Yu A (CIB), Kaminskas L (CIC), Velkov T (CID), Martin L (CIE),  
**Bulitta JB (CIF)**

Optimising synergy of aminoglycoside conjugates with  $\beta$ -lactam antibiotics  
06/2013 – 02/2014, \$20k (AUD)

23. **Bulitta JB (Co-PI)**, Bugg TD (Co-PI), Landersdorfer C, Dowson C, Velkov T, Roper D, Charman S.

Exploiting cell wall biosynthesis for novel multi-target therapeutics  
Monash-Warwick 2013-2014 Alliance Seed Fund  
07/2013 – 06/2014, \$20k (AUD)

### **New Projects Awarded In 2012:**

24. **Bulitta JB (PI)**

Targeting bacterial superbugs: novel approaches for optimisation of antibiotic combinations and resistance prevention

Australian Research Council (**ARC**) Discovery Early Career Researcher Award (DECRA) Fellowship, DE120103084, 1/2012 – 12/2014, \$375k (AUD); similar to **K99/R00**.

25. Landersdorfer CB (CIA, PI), **Bulitta JB (CIB, Co-PI)**.

Population pharmacokinetic modelling and Monte Carlo simulations to optimise the dosage regimens of an anti-cancer drug; Collaborative pharmaceutical industry grant 05/2012 – 08/2012, \$10k (AUD)

26. **Bulitta JB (CIA, PI)**, Velkov T (CIB), Landersdorfer CB (CIC), Boyce JD (CID)

Synergistic antibiotic combinations to prevent resistance of critical gram-negative 'superbugs'  
Monash Faculty grant 06/2012 – 01/2013, \$20k (AUD)

### **New Projects Awarded In 2011:**

27. **Bulitta JB (PI)**

Mechanism-based population pharmacokinetic / pharmacodynamic modeling of a new protein therapeutic product; Collaborative pharmaceutical industry grant 01/2011 – 07/2011, \$83k (USD)

28. Kirkpatrick CK (CIA), Landersdorfer CB (CIB), **Bulitta JB (CIC)**

Mechanism-based modeling and simulation of a protein pharmaceutical  
Collaborative pharmaceutical industry grant, 09/2011 – 11/2011, \$30k (AUD)

29. **Bulitta JB (CIA, PI)**, Landersdorfer CB (CIB), Kirkpatrick CM (CIC)

Translational, mechanism-based mathematical modeling of a new antibiotic bridging from *in vitro* models to animals and man  
Collaborative pharmaceutical industry grant, 08/2011 – 12/2011, \$125k (AUD)

30. **Bulitta JB (CIA, PI)**, Kirkpatrick CK (CIB), Landersdorfer CB (CIC)

Mechanism-based modeling and simulations of the pharmacokinetics and pharmacodynamics of antibodies in oncology  
Collaborative pharmaceutical industry grant, 10/2011 – 02/2012, \$50k (AUD)

31. Landersdorfer CB (CIA), Kirkpatrick CK (CIB), **Bulitta JB (CIC)**

Mechanism-based modeling and simulation of a protein pharmaceutical  
Collaborative pharmaceutical industry grant, 11/2011 – 11/2012, \$193k (AUD)

32. **Bulitta JB (CIA, PI)**, Landersdorfer CB (CIB), Bergen PJ (CIC), Kirkpatrick CM (CID)

Experimental approaches to optimize combination therapy for a new antibiotic against critical gram-negative bacteria; Collaborative pharmaceutical industry grant 12/2011 – 7/2012, \$159k (AUD)

### **New Projects Awarded In 2010:**

33. **Bulitta JB (PI)**, Landersdorfer CB (Co-PI)  
Population Pharmacokinetic Modeling and Simulation for a muscle relaxant  
Collaborative pharmaceutical industry grant, 05/2010 – 07/2010, \$16k (USD)
34. Landersdorfer CB (PI), **Bulitta JB (Co-PI)**  
Population Pharmacokinetic Modeling and Simulation for an antineoplastic agent  
Collaborative pharmaceutical industry grant, 08/2010 – 06/2010, \$15k (USD)
35. **Bulitta JB (PI)**  
Pharmacokinetic Modeling and Simulation for an antineoplastic agent  
Collaborative pharmaceutical industry grant, 04/2010 – 06/2010, \$7.5k (USD)
36. **Bulitta JB (PI)**, Landersdorfer CB (Co-PI).  
Mathematical modeling of the mechanisms of action and mechanisms of resistance of a new antibiotic class in mono- and combination therapy  
Collaborative pharmaceutical industry grant, 01/2010 – 06/2011, \$345k (USD)

### **New Projects Awarded In 2009:**

37. **Bulitta JB (Co-PI)**, Landersdorfer CB (Co-PI)  
Population Pharmacokinetic Modeling and Monte Carlo Simulations of an Antineoplastic Agent,  
Collaborative pharmaceutical industry grant, 04/2009 – 06/2009, \$25k (USD)
38. Ambrose PG (PI), Bhavnani S (Co-PI), **Bulitta JB (Co-I)**, Forrest A (Co-I), Okusanya O (Co-I)  
Population Pharmacokinetic Modeling and Meta-analysis over Several Studies  
Collaborative pharmaceutical industry grant, 03/2009 – 06/2009, \$135k (USD)
39. Ambrose PG (PI), Bhavnani S (Co-PI), Forrest A (Co-I), Tsuji BT (Co-I), **Bulitta JB (Co-I)**  
Infectious Disease Experimentation and Pharmacodynamic Modeling  
Collaborative pharmaceutical industry grant, 04/2009 – 07/2009, \$100k (USD)
40. **Bulitta JB (Co-PI)**, Drusano GL (Co-PI), Landersdorfer CB (Co-I)  
Mechanism-based Pharmacokinetic / Toxicodynamic Modeling and Monte Carlo Simulation grant  
Collaborative pharmaceutical industry grant, 06/2009 – 3/2010, \$153k (USD)

### **New Projects Awarded In 2007 and 2008:**

41. Nation RL (PI), Li J (Co-I), Tsuji BT (Co-PI), Forrest A (Co-I), **Bulitta J (Co-I)**, Paterson DL (Co-I)  
“Targeting MDR hetero-resistant Gram-negatives: PK/PD for rational combinations”  
**NIH / NIAID (US), R01** Research Grant, 5R01AI079330, 07/2008 – 06/2012, \$2,213k (USD)
42. **Bulitta JB (Fellow)**, Jusko WJ (Mentor), Pharmacometrics Fellowship in Infectious Diseases  
Johnson & Johnson, 08/21/2007 – 08/20/2008, fellowship grant renewal, \$120k (USD)
43. Tsuji BT (PI), Forrest A (Co-I), **Bulitta JB (Co-I)**  
Experimentation and Mathematical Modeling of the PK/PD of an Antibiotic vs. *S. aureus*  
Collaborative pharmaceutical industry grant, 03/2008 – 02/2010, \$400k (USD)
44. **Bulitta JB (Co-PI)** and Tsuji BT (Co-PI)  
PK/PD/PG Models for the Dynamics of Bacterial Responses to Peptide Antibiotics  
Collaborative pharmaceutical industry grant – Laboratory of Protein Therapeutics (SUNY Buffalo),  
08/2008 to 07/2009, \$100k (USD)
45. **Bulitta JB (Co-PI)**, Landersdorfer CB (Co-PI)  
Monte Carlo Simulation and Dose Optimization for an Antibiotic in Children  
Collaborative pharmaceutical industry grant, 10/2008 – 03/2009, \$11.5k (USD)



## Major Peer-Reviewed Grant Applications – Not Awarded

### **Applied for – 2015 to 2016:**

46. **Bulitta JB (CIA, PI)**, Boyce JD (CIB), Landersdorfer CB (CIC), Nation RL (CID)  
Innovative pharmacological approaches to combating resistant bacterial 'superbugs'  
APP1088059, Australian National Health and Medical Research Council (**NHMRC**) Project grant,  
01/2015 – 12/2018, \$789k (AUD)
47. Roberts JA (CIA), Lipman J (CIB), Boots R (CIC), **Bulitta JB (CID)**, De Waele (CIE), Udy A (CIF),  
Koulenti D (CIG), Felton T (AI)  
Developing innovative doses to maximise the effectiveness of commonly used antibiotics for treatment  
of pneumonia in the intensive care unit  
APP1099448, Australian National Health and Medical Research Council (**NHMRC**) Project grant,  
01/2016 – 12/2018, \$939k (AUD); similar to an **R01**.
48. Shekar K (CIA), Roberts J (CIB), Fraser J (CIC), Brodie D (CID), Smith M (CIE), **Bulitta J (CIF)**  
Antibiotic, Sedative and Analgesic Pharmacokinetics during Extracorporeal Membrane Oxygenation  
(ASAP ECMO): An international multi-centre study to optimise drug dosing and improve patient  
outcomes  
APP1106483, Australian National Health and Medical Research Council (**NHMRC**) Project grant,  
01/2016 – 12/2018, \$721k (AUD); similar to an **R01**.

### **Applied for – 2013 to 2014:**

49. Yu A (CIA), **Bulitta J (CIB)**  
Smart Thin Films for Tunable Loading and Release of Antibiotics  
Australian Research Council (ARC) Discovery Project (DP130101710),  
1/2013 – 12/2015, \$348k (AUD) – scored highly, but not successful
50. Kaminskas L (CIA), Boyd B (CIB), **Bulitta JB (CIC)**  
Understanding the fundamental basis of lymphatic recirculation and its role in maintaining the long  
circulatory behaviour of macromolecular drugs and drug delivery systems  
APP1060356, Australian National Health and Medical Research Council (NHMRC) Project grant,  
01/2014 – 12/2016, \$542k (AUD)
51. **Bulitta JB (PD/PI)**, Louie A (PD/PI), Boyce J, Landersdorfer C, Drusano G, Velkov T, Peleg A, Yu A  
Combating resistant *A. baumannii* by innovative combination dosing strategies  
National Institutes of Health, **NIH / NIAID**, 1R01AI111969-01  
3/01/2014 – 2/28/2019, \$4,626k (USD)
52. Charman S (PI), Porter C, Pouton C, **Bulitta J**, Kirkpatrick C, Baell J, Owen D, Harvey A, Draffan A,  
Meutermans W, Parsons J, Burrows J  
Biotechnology Transformation Hub for Innovative Drug Discovery  
Australian Research Council (**ARC**) Industrial Transformation Research Hubs, IH130200018,  
7/2014 – 6/2019, \$4,979k (AUD)
53. Kaminskas L, Owen DJ, Porter CJH, **Bulitta JB**, Bischof R  
Improving the treatment of lung cancers using a novel drug delivery approach  
National Institutes of Health, **NIH / NCI**, IR21CA186995-01  
7/1/2014 – 6/30/2016, \$295k (USD)

***Applied for – 2011 to 2012:***

54. **Bulitta JB (PI)**, Oliver A (Co-I), Kosowska-Shick K (Co-I)  
Modeling Unique Receptor Occupancy Patterns to Suppress Resistance and Persisters  
NSF (DMS – Mathematical Biology) / NIH (joint grant announcement, NSF 10-579)  
5/1/2011 to 4/30/2016, \$2,000k (USD)

55. **Bulitta JB (Co-PI)**, Tsuji BT (Co-PI)  
Targeting Resistance Suppression in Community-acquired Gram Negative Bacteria  
NIH – FDA Advancing Regulatory Science through Development of Innovative Methodologies in the  
Area of Antimicrobial Development (U01), RFA-FD-11-026  
9/1/2011 to 8/31/2012, \$147,875

56. Tsuji BT (PD/PI), Li J (PD/PI), Forrest A, Nation RL, **Bulitta JB**, Boyce JD, Landersdorfer CB  
Combating Gram negative Superbugs: Novel Strategies for Polymyxin Combinations  
NIH / NIAID (US), \$2,528k (USD), 12/2012 – 11/2016 – scored highly (26<sup>th</sup> percentile)

***Applied for – 2008 to 2010:***

57. **Bulitta JB (PI)**, Jusko WJ (Mentor), Drusano GL (Mentor)  
Dynamics of genomic and phenotypic responses to antibiotics  
NIH Pathway to Independence (PI) Award (K99/R00), PA-07-297  
07/01/08 to 06/30/2011, \$592k (USD), Score: 202

58. **Bulitta JB (PI)**, Jusko WJ (Mentor) , Drusano GL (Co-Mentor)  
Mathematical Models for the Dynamics of Bacterial Responses to Antibiotics  
Burroughs Wellcome Fund  
01/01/09 to 12/31/2013, \$500k (USD)

59. **Bulitta JB (PI)**  
Unique Penicillin-Binding Protein Occupancy Patterns to Suppress Resistance and the Persister  
Phenotype; 2011 NIH Director's New Innovator Award Program (DP2; RFA-RM-10-009),  
9/30/2010 to 7/31/2015, \$1,500k (USD)

## Funding summary

<b>AWARDED</b>	<b>\$17.4m</b>	from 45 awarded grants since 08/2007
<i>Including:</i>	<b>\$15.0m</b>	from peer-reviewed (NIH, FDA, NHMRC, ARC grants)
	<b>\$ 4.0m</b>	as Principal Investigator (PI) / Chief Investigator A (CIA)
	<b>\$ 2.4m</b>	as PI on peer-reviewed FDA, NHMRC and ARC grants
<b>APPLIED (in review)</b>	<b>\$ 6.1m</b>	

The Australian Research Council (**ARC**) is the Australian equivalent of NSF. The National Health and Medical Research Council (**NHMRC**) is the Australian equivalent of NIH.

Please note that grants from NHMRC and ARC only list direct costs (*i.e.* do not contain overhead) and also do not contain any salary from the investigators.

## Publication summary

Research papers (total): **122** published since 1999 (PhD awarded in 09/2006; **99 since 2009**)  
Peer-reviewed: **112** published since 1999 (including 4 peer-reviewed book chapters)  
Peer-reviewed papers: **108** published since 1999  
**5** additional paper(s) currently under peer review

**h-index:** **24** (total)  
**24** (since 2009)

**Citations:** **>2500** (based on ISI Web of Knowledge, Scopus and Google Scholar)

Full courses taught: **1** (Translational Clinical Pharmacology, 3 credit hours)

Full workshops taught: **16** since 1999

Workshops lectures: **23** since 2004

Oral presentations: **80** since 1998  
*including* **17** Invited international podium presentations since 2009

Conference abstracts: **161** since 1998

**Summary of awards:** **19** junior scientist / young investigator awards since 1998  
(see appendix for details)

**Grant reviewer (invited):**

National Health and Medical Research Council (**NHMRC**), since 2012  
Australian Research Council (**ARC**); since 2012.  
Wellcome Trust, since 2013.  
Singaporean Ministry of Health; since 2013

**Editorial Board Member**

**Antimicrobial Agents & Chemotherapy**, American Society for Microbiology, Washington, DC; since 2009. (ERA: A\*, Impact factor: **4.451**)

**Journal Reviewer (invited)**

1. **Nature** (directly invited), London, UK; since 2014. ERA: A\*, Impact factor: 36.458.
2. AAPS Journal, Arlington, Virginia, USA; since 2008. ERA: C, Impact factor: 3.540.
3. Antimicrobial Agents and Chemotherapy, American Society for Microbiology, Washington, DC; since 2006. ERA: A\*, Impact factor: 4.802.
4. BMC Microbiology, BioMed Central Ltd; London, UK, since 2010. ERA: A, Impact factor: 2.890.
5. British Journal of Clinical Pharmacology, Wiley-Blackwell, UK; since 2009. ERA: A, Impact factor: 3.246.
6. Chemotherapy, S. Karger AG, Basel, Switzerland; since 2003. ERA: A, Impact factor: 2.028.
7. Clinical Pharmacokinetics, Adis, New Zealand; since 2009. ERA: A, Impact factor: 4.560.
8. Clinical and Vaccine Immunology, American Society for Microbiology, Washington, DC; since 2012. Impact factor: 2.546.
9. Critical Care Medicine, Lippincott Williams & Wilkins, Philadelphia, PA; since 2011. ERA: A, Impact factor: 6.373.
10. Diagnostic Microbiology and Infectious Disease, Elsevier; North Liberty, IA, USA; since 2009. ERA: B, Impact factor: 2.451.
11. European Journal of Clinical Pharmacology, Springer Berlin/Heidelberg, Germany; since 2010. ERA: A, Impact factor: 2.743.
12. European Journal of Pharmaceutical Sciences, Elsevier; Helsinki, Finland; since 2010. ERA: A, Impact factor: 2.608.
13. International Journal of Antimicrobial Agents, Elsevier; UK; since 2010. ERA: B, Impact factor: 3.032.
14. Journal of Antimicrobial Chemotherapy, Oxford Journals, UK; since 2009. ERA: A, Impact factor: 4.352.
15. Journal of Clinical Pharmacology, SAGE; Thousand Oaks, CA, USA; since 2010. ERA: B, Impact factor: 3.442.
16. Journal of Clinical Pharmacy and Therapeutics, Wiley-Blackwell; Nottingham, UK; since 2010. ERA: B, Impact factor: 1.671.
17. Journal of Infection, Elsevier; since 2012, Impact factor: 4.126.
18. Journal of Pharmaceutical Sciences; since 2012, Impact factor: 3.055.
19. Journal of Pharmacokinetics and Pharmacodynamics, Springer, USA; since 2006. ERA: A, Impact factor: 2.055.
20. Mathematics and Computers in Simulation; since 2012
21. CPT: Pharmacometrics & Systems Pharmacology; since 2013
22. BioMed Research International; since 2014

**Memberships**

German National Academic Foundation (“Studienstiftung des Deutschen Volkes”), since 2002.

American Society for Microbiology, since 2006.

American Association of Pharmaceutical Scientists, since 2006.

German Pharmaceutical Society, since 2008.

European Society of Clinical Microbiology and Infectious Diseases (ESCMID), since 2011.

American Society of Pharmacometrics (ASoP), founding member, since 2011.

Australasian Society of Clinical and Experimental Pharmacologists and Toxicologists (ASCEPT), since 2011.

**Past memberships**

Executive Committee member, SUNY Buffalo Post-Doctoral Association (PDA), 2007 - 2009.

Co-President, SUNY Buffalo Post-Doctoral Association (PDA), 2008 - 2009.

American College of Clinical Pharmacy, 2007 - 2009.

## TEACHING

### Courses on Pharmaceutical Sciences and Clinical Studies

<b>Course</b>	<b>Lecture Title</b>
<b>PHA 6133</b>	<b>Translational Clinical Pharmacology</b> (3 credit course, primary course leader)
<b>PHA 6125</b>	Absorption, bioavailability and bioequivalence
<b>PHA 6125</b>	Berkley Madonna: Drug input for single and multiple IV and extravascular doses
<b>PHA 6125</b>	Berkley Madonna: Nonlinear PK: Michaelis-Menten and Target Mediated Drug Disposition (TMDD)
<b>PHA 6125</b>	Monte Carlo simulations: Visualizing them in Berkley Madonna
<b>PHC 607</b>	Clinical Trial Simulation – a cutting edge in Pharmacometrics Bioavailability and Bioequivalence studies (SUNY Buffalo, 2006)
<b>PHC 609</b>	Guides and Principles of Antimicrobial Chemotherapy (SUNY Buffalo, 2007 & 2008)
<b>PSC3112</b>	<b>Drug discovery and development</b>
PSC3112	Preformulation: the physicochemical characterisation of drugs (lecture, Monash Uni.)
PSC3112	Drug and physiological properties that affect oral bioavailability (lecture, Monash Uni.)
<b>PSC3212</b>	<b>Pharmaceutical regulatory framework</b>
PSC3212	<i>In Vitro / In Vivo</i> Correlations (IVIVC; lecture and hands-on training, Monash Uni.)
PSC3212	Bioavailability / Bioequivalence Studies (lecture and hands-on training, Monash Uni.)
PSC3212	Target drug effects (lecture and hands-on training, Monash University)
<b>Winter school</b>	How to Engage in Scientific Discussions (Monash University, since 2012)

### Courses on General PK/PD (Beginner Level)

<b>PKPD1</b>	Benefits and Purposes of Modeling & Simulation in Biomedical Sciences (SUNY Buffalo & Monash University, since 2011)
<b>PKPD2</b>	Basic Kinetic Processes (SUNY Buffalo & Monash University, since 2011)
<b>PKPD3</b>	Introduction to Basic Components of Time-Course Models (SUNY Buffalo & Monash University, since 2011)
<b>PKPD4</b>	Introduction to Berkeley Madonna: Simulation of a 1-compartment Linear Model with first-order absorption (SUNY Buffalo & Monash University, since 2011)
<b>PKPD5</b>	Models for release kinetics from a pharmaceutical formulation and for drug absorption (SUNY Buffalo & Monash University, since 2011)
<b>PKPD6</b>	Model Building in Berkeley Madonna (SUNY Buffalo & Monash University, since 2011)
<b>PKPD7</b>	Overview of PD models (SUNY Buffalo & Monash University, since 2011)
<b>PKPD8</b>	Writing and simulation of basic pharmacodynamic models in Berkeley Madonna (SUNY Buffalo & Monash University, since 2011)
<b>PKPD9</b>	Introduction to basic estimation methods (SUNY Buffalo & Monash University, since '11)
<b>PKPD10</b>	Selecting the “best” model by use of diagnostic plots and model selection criteria (SUNY Buffalo & Monash University, since 2011)

- PKPD11** Making the most of the available pharmacometric software - the 'right' program for the 'right' task (SUNY Buffalo, since 2008)
- PKPD12** Why population PK/PD? An Overview of Methods and Application (48th Annual ICAAC, 2008)
- PKPD13** Introduction into pharmacokinetics, pharmacodynamics and in-vitro/in-vivo correlations using WinNonlin® Professional, (Cologne, 1999)

**Courses on Pharmacometrics and PK/PD (Intermediate to Advanced Level)**

- PKPD21** Population Pharmacokinetic and Mechanism-Based Population Pharmacokinetic / Pharmacodynamic Models (SUNY Buffalo & Monash University, since 2011)
- PKPD22** Introduction to Monte Carlo Simulations and Between Patient Variability (SUNY Buffalo & Monash University, since 2011)
- PKPD23** Features and Benefits of S-ADAPT and SADAPT-TRAN (SUNY Buffalo & Monash University, since 2011)
- PKPD24** Dataset Structure and Key Estimation and Parameter Settings for Population Modeling (SUNY Buffalo & Monash University, since 2011)
- PKPD25** Estimation of a Population PK Model and Monte Carlo Simulation to evaluate predictions with and without covariance (SUNY Buffalo & Monash University, since 2011)
- PKPD26** Introduction to Population Estimation Algorithms (SUNY Buffalo & Monash University, since 2011)
- PKPD27** Modeling Covariate Effects via a Pharmacokinetic / Pharmacodynamic Approach (SUNY Buffalo & Monash University, since 2011)
- PKPD28** Qualifying Population Pharmacokinetic / Pharmacodynamic Models via Predictive Checks and Guide for Interpretation (SUNY Buffalo & Monash University, since 2011)
- PKPD29** Population Pharmacokinetic Modelling with Between Subject and Between occasion variability (SUNY Buffalo & Monash University, since 2011)
- PKPD30** Population Pharmacokinetic and Mechanism-Based Population Pharmacokinetic / Pharmacodynamic Models (SUNY Buffalo & Monash University, since 2011)
- PKPD31** Overview and comparison of parametric and non-parametric estimation techniques. Properties & Capabilities (Ehrlich II Conference, 2008)

**Lecture Series on Infectious Diseases and Disease Modeling (Beginner to Advanced Level)**

- ID1** General Principles and Mechanism-based Mathematical Modelling of Anti-infectives to Maximize Bacterial Killing and Prevent Resistance
- ID2** Mechanism Based PK/PD Models of Anti-infectives
- ID3** Pharmacokinetic / Pharmacodynamic Models of Resistance (ICAAC, since 2009).
- ID4** Pharmacodynamics: How Can It Help You? Combination chemotherapy Workshop lecture at the National Institute of Allergy and Infectious Diseases (NIAID), National Institute of Health (NIH), December 2009
- ID5** Pharmacodynamics: How Can It Help You? Mechanism-based Modeling Workshop lecture at the National Institute of Allergy and Infectious Diseases (NIAID), National Institute of Health (NIH), December 2009
- ID6** PK/PD models of resistance – Understanding & limiting emergence of resistance via PK/PD modeling (ICAAC, 2010).
- ID7** Mathematical Modeling and Pharmacokinetics/Pharmacodynamics (ICAAC, 2012).
- ID8** Mathematical Modeling: Software Choices (ICAAC, 2014).

## **Teaching and supervision (ongoing)**

### **PhD students**

- 1) Yuli Qian, PhD student at CPSP, Pharmaceutics, College of Pharmacy, University of Florida (primary supervisor, starting 05/2016)
- 2) Xun Tao, PhD student at CPSP, Pharmaceutics, College of Pharmacy, University of Florida (primary supervisor, starting 07/2016)
- 3) Stefanie Kathrin Drescher, PhD student at CPSP, Pharmaceutics, College of Pharmacy, University of Florida (co-supervisor, starting 08/2016)
- 4) Rajbharan Yadav, PhD student at D4 / MIPS, Monash University (Primary supervisor, since 04/2014)
- 5) Vanessa Rees, PhD student at D4 / MIPS, Monash University (Primary supervisor, since 02/2014)

### **Postdocs**

- 1) Dr. Yuanyuan Jiao (clinical pharmacist), Senior Postdoc at CPSP, Pharmaceutics, College of Pharmacy, University of Florida (primary supervisor, since 03/2016)
- 2) Dr. Bartolomé Moyá Cañellas (molecular microbiologist), senior postdoc at CPSP, Pharmaceutics, College of Pharmacy, University of Florida (primary supervisor, since 03/2016)
- 3) Dr. Tae Hwan Kim (pharmaceutics, LC-MS/MS, animal models), postdoc at CPSP, Pharmaceutics, College of Pharmacy, University of Florida (primary supervisor, starting 04/2017)

### **Research Intern Students**

- 1) Louisa K. M. Schlaak, German pharmacist intern student for 6 months at CPSP, Pharmaceutics, COP, UF (primary supervisor, since 5/2015 to 10/2016)
- 2) Nrec N Dedaj (primary supervisor, systematic literature review and laboratory internship, 2016, UF, Orlando, USA)
- 3) Priscell Villegas (primary supervisor, systematic literature review and laboratory internship, 2016, UF, Orlando, USA)
- 4) Brandon O Klee (primary supervisor, systematic literature review and laboratory internship, 2016, UF, Orlando, USA)
- 5) Frank S Gonzalez (primary supervisor, systematic literature review and laboratory internship, 2016, UF, Orlando, USA)
- 6) Kirsten Prince (primary supervisor, laboratory research internship, 2017, UF, Orlando, USA)
- 7) Alex Duarte (primary supervisor, laboratory research internship, 2017, UF, Orlando, USA)

## **Teaching and supervision (completed)**

### **PhD students primary or co-supervisor (successfully completed)**

- 1) Dr. Neang S. Ly (co-supervision, mathematical modeling, 2009 - 2014, SUNY Buffalo, Buffalo, NY)
- 2) Soon-Ee Cheah, MSc (co-supervision and training in mechanism-based modeling of antibiotics, 2011 - 2016, Monash University, Melbourne, Australia)
- 3) Tasnuva Tamanna, PhD student, Swinburne University (Co-supervisor, 11/2013 – 12/2016)

### **PhD students – research advisor**

- 4) Tracy Tai, PhD (informal co-supervision of population modeling for pharmaceutical dissolution profiles, 2009 to 2011, Monash University, Melbourne, Australia)
- 5) Gemma Ryan, BSc (no formal supervisor; training in mechanism-based population PK modeling of small and large molecules with a focus on absorption and disposition into lymph, 2012 - 2016, Monash University, Melbourne Australia)



### **MSc student(s)**

- 1) Annette Dahlberg, MSc (informal co-supervision & training in population PK modeling of antibodies in oncology, 2011 - 2013, Monash University, Melbourne, Australia)
- 2) Gordon Shing Yip Lee (external advisor, molecular studies and drug transport involving fatty acid binding proteins, 2012 - 2015, Monash University, Melbourne, Australia)

### **BSc student projects**

- 1) Emelie Olsen, BSc (co-supervision & training in population PD modeling of colistin combination *in vitro*, Monash University, Melbourne, Australia)
- 2) Neang S. Ly (supervision of experimental project for BSc studies, 2008 - 2009, SUNY Buffalo, Buffalo, NY, USA)
- 3) Yi-Chu (Emely) Wang (co-supervision of a systematic literature review project, 2012 - 2013, Monash University, Melbourne, Australia)
- 4) Yen Mei Chuah (primary supervision of a 6-week experimental internship in antibiotic therapy, 2012 - 2013, Monash University, Melbourne, Australia)
- 5) Jinq Ru Lim (primary supervision of a systematic literature review project, 2012 - 2013, Monash University, Melbourne, Australia)

### **Intern students**

- 1) Nrec N Dedaj (primary supervisor, systematic literature review, 2015/16, UF, Orlando, USA)
- 2) Adrian A Mottley (primary supervisor, systematic literature review, 2015/16, UF, Orlando, USA)
- 3) Jose C Tamayo (primary supervisor, systematic literature review, 2015/16, UF, Orlando, USA)
- 4) Jeff H Kamta (primary supervisor, systematic literature review, 2015/16, UF, Orlando, USA)
- 5) Priscell Villegas (co-supervisor, systematic literature review, 2015/16, UF, Orlando, USA)
- 6) Adam Collin (co-supervisor, systematic literature review, 2015/16, UF, Orlando, USA)
- 7) Stefanie Raghunandan (co-supervisor, systematic literature review, 2015/16, UF, Orlando, USA)
- 8) Markus T. Meyer, German pharmacist intern student for 6 months at CPSP, Pharmaceuticals, COP, UF (primary supervisor, 11/2015 to 04/2016)
- 9) Jeff H Kamta (primary supervisor, systematic literature review, 2016, UF, Orlando, USA)

### **Postdocs**

- 1) Hongmei Xu, PhD (co-supervisor, postdoc fellowship, 2010 - 2011, SUNY Buffalo, Buffalo, NY)
- 2) Samira M Garonzik, PharmD (co-supervision for modeling fellowship, 2010 - 2011, SUNY Buffalo)
- 3) Hee Ji Lee, PhD (minor co-supervision & training in population PD modeling of colistin combination *in vivo*, Monash University)
- 4) Ashley N Brown, PhD (teaching in mechanism-based population PK/PD modeling for antiviral compounds, 2009 - ongoing, Institute for Therapeutic Innovation, University of Florida, FL, USA)
- 5) Eduard Raby, PhD (Microbiology Registrar; advanced training in hollow fiber *in vitro* infection models 2013, Freemantle hospital, Perth, Australia)
- 6) Dr. Linda Chan (mentoring in pharmacokinetics and population PK modelling, 2013 - ongoing, D4 / MIPS, Monash University)

### Students and Fellows (Current Positions)

<b>Years</b>	<b>Person</b>	<b>Role</b>	<b>Current position</b>
2007 - 2008	Ms. Neang Sok Ly	BSc student	Working at MedImmune
2009 - 2014	Ms. Neang Sok Ly	<b>PhD student (completed)</b>	Working at MedImmune
2009	Dr. Silvia E. Brown	Postdoc	Teaching college
2009 - 2010	Dr. Hongmei Xu	Postdoc	AstraZeneca
2009 - 2011	Ms. Rebecca E. D'Hondt	Technician	Regeneron
2010 - 2011	Ms. Holland DeFiglio	Technician	Regeneron
2011 - 2016	Mr. Soon-Ee Cheah	<b>PhD student (completed)</b>	Postdoc at Monash University
2012 - 2013	Ms. Jessica Shan	Research Assistant	CSL
2012 - 2015	Ms. Yen Mei Chuah	Summer student / part time RA	Pharmacy student
2013	Ms. Jinq Ru Lim	Literature review project	Clinical Pharmacist
2013	Ms. Yi-Chu (Emelie) Wang	Literature review project	Clinical Pharmacist
2013 - 2015	Ms. Kate Rogers	Research Assistant	Research Assistant
2014	Ms. Sin Loo Wang	Summer intern student	Pharmacy student
2014	Ms. Lina Ly	Summer student / part time RA	Pharmacy student
2014	Ms. Sally Hoang	Summer intern student	Pharmacy student
2013 - 2016	Ms. Tasnuva Tamanna	<b>PhD student (completed)</b>	PhD student
2014 - ongoing	Ms. Vanessa Rees	PhD student	PhD student
2014 - ongoing	Mr. Rajbharan Yadav	PhD student	PhD student
2016 - ongoing	Mr. Yuli Qian	PhD student	PhD student
2016 - ongoing	Mr. Xun Tao	PhD student	PhD student
2016 - ongoing	Ms. Stephanie Drescher	PhD student	PhD student

## PUBLICATIONS

Please note: Antimicrobial Agents and Chemotherapy is one of the two internationally leading journals in antimicrobial pharmacology. It is the #1 cited journal in Pharmacology & Pharmacy and #4 cited journal in microbiology, with >48,000 citations. It is the #1 journal in Pharmacology & Pharmacy and #6 in Microbiology ranked by *Eigenfactor* score. Slightly less than half (35 of 81) of my papers since 2009 were published in Antimicrobial Agents and Chemotherapy.

### Full papers

#### *Papers published in 2017:*

1. Lenhard JR, **Bulitta JB**, Connell TD, King-Lyons N, Landersdorfer CB, Cheah SE, Thamlikitkul V, Shin BS, Rao G, Holden PN, Walsh TJ, Forrest A, Nation RL, Li J, Tsuji BT. High-intensity meropenem combinations with polymyxin B: new strategies to overcome carbapenem resistance in *Acinetobacter baumannii*. J Antimicrob Chemother 2017; 72:153-65. [PMID: 27634916](#)
2. Kim TH, Shin S, **Bulitta JB**, Youn YS, Yoo SD, Shin BS. Development of a physiologically relevant population pharmacokinetic in vitro-in vivo correlation approach for designing extended-release oral dosage formulation. Mol Pharm 2017; 14:53-65. [PMID: 27809538](#)
3. Bulman ZP, Ly NS, Lenhard JR, Holden P, **Bulitta JB**, Tsuji BT. Influence of rhlR and lasR on Polymyxin Pharmacodynamics in *Pseudomonas aeruginosa*: Implications for Quorum Sensing Inhibition with Azithromycin. Antimicrob Agents Chemother 2017; 61. pii: e00096-16. [PMID: 28096154](#)
4. Bergen PJ, **Bulitta JB**, Kirkpatrick CM, Rogers K, McGregor M, Wallis S, Paterson D, Nation RL, Lipman J, Roberts JA, Landersdorfer CB. Substantial impact of altered pharmacokinetics in critically ill patients on the antibacterial effects of meropenem evaluated *via* the dynamic hollow-fiber infection model. Antimicrob Agents Chemother 2017. pii: AAC.02642-16. [PMID: 28264846](#)
5. Lenhard JR, Smith NM, Bulman ZP, Tao X, Thamlikitkul V, Shin BS, Nation RL, Li J, **Bulitta JB**, Tsuji BT. High-Dose Ampicillin-Sulbactam Combinations Combat Polymyxin-Resistant *Acinetobacter baumannii* in a Hollow-Fiber Infection Model. Antimicrob Agents Chemother. 2017; 61. pii: e01268-16. [PMID: 28052852](#)
6. Tängdén T, Ramos Martín V, Felton TW, Nielsen EI, Marchand S, Brüggemann RJ, **Bulitta JB**, Bassetti M, Theuretzbacher U, Tsuji BT, Wareham DW, Friberg LE, De Waele JJ, Tam VH, Roberts JA. The role of infection models and PK/PD modelling for optimising care of critically ill patients with severe infections. Intensive Care Medicine, Accepted March 19, 2017.
7. Lenhard JR, Thamlikitkul V, Silveira FP, Garonzik SM, Tao X, Forrest A, Soo Shin B, Kaye KS, **Bulitta JB**, Nation RL, Li J, Tsuji BT. Polymyxin-resistant, carbapenem-resistant *Acinetobacter baumannii* is eradicated by a triple combination of agents that lack individual activity; J Antimicrob Chemother, accepted March 23, 2017. [PMID: 28333347](#)
8. Zavascki AP, Klee BO, **Bulitta JB**. Aminoglycosides against carbapenem-resistant Enterobacteriaceae in the critically ill: the pitfalls of aminoglycoside susceptibility; Expert Review of Anti-infective Therapy, accepted April 3, 2017. [PMID: 28375030](#)

**Papers published in 2016:**

9. Jacobs M, Grégoire N, Couet W, **Bulitta JB**. Distinguishing antimicrobial PK/PD models with different resistance mechanisms via Monte Carlo simulations and population modeling. *PLoS Comput Biol*. 2016; 12:e1004782. [PMID: 26967893](#)
10. Chan LJ, Ascher DB, Yadav R, **Bulitta JB**, Porter CJH, Williams CC, Kaminskas LM. Conjugation of 10 kDa Linear PEG onto Trastuzumab Fab' Is Sufficient to Significantly Enhance Lymphatic Exposure while Preserving in Vitro Biological Activity. *Mol Pharm*. 2016; 13:1229-41. [PMID: 26871003](#)
11. Ly NS, Bulman ZP, **Bulitta JB**, Baron C, Rao GG, Holden PN, Li J, Sutton MD, Tsuji BT. Combating Rapid Evolution in Mutator *Pseudomonas aeruginosa*: PK/PD Optimization of Polymyxin B Combinations. *Antimicrob Agents Chemother* 2016; 60:2870-80. [PMID: 26926641](#)
12. Hope WW, Walsh TJ, Goodwin J, Peloquin CA, Howard A, Kurtzberg J, Mendizabal A, Confer D, **Bulitta JB**, Baden L, Neely MN, Wingard JR, Blood and Marrow Transplant Clinical Trials Network. Voriconazole Pharmacokinetics Following Hematopoietic Stem Cell Transplantation: Results from the BMT CTN 0101 Trial. *J Antimicrob Chemother*. 2016; 71:2234-40. [PMID: 27121401](#)
13. Bergen PJ, **Bulitta JB**, Kirkpatrick CMJ, Rogers K, McGregor M, Wallis SC, Paterson DL, Lipman J, Roberts JA, Landersdorfer CB. Effect of different renal function on anti-bacterial effects of piperacillin against *Pseudomonas aeruginosa* evaluated via the hollow fibre infection model and mechanism-based modelling; *J Antimicrob Chemother*. 2016; 71:2509-20. [PMID: 27231278](#)
14. Cheah S-E, Li J, Tsuji BT, Forrest A, **Bulitta JB**<sup>#</sup>, Nation RL<sup>#</sup>. (<sup>#</sup>: Joint senior authors) Colistin and polymyxin B dosage regimens against *Acinetobacter baumannii*: Differences in activity and the emergence of resistance. *Antimicrob Agents Chemother*. 2016; 60:3921-33. [PMID: 27067324](#)
15. Tsuji BT, Landersdorfer CB, Lenhard J, Cheah S-E, Thamlikitkul V, Rao GG, Holden PN, Forrest A, **Bulitta JB**, Nation RL, Li J. Paradoxical Effect of Polymyxin B: High Drug Exposure Amplifies Resistance in *Acinetobacter baumannii*. *Antimicrob Agents Chemother*. 2016; 60:3913-20. [PMID: 27067330](#)
16. Cheah S-E, Johnson MD, Zhu Y, Tsuji BT, Forrest A, **Bulitta JB**, Boyce JD, Nation RL, Li J. Polymyxin Resistance in *Acinetobacter baumannii*: Genetic Mutations and Transcriptomic Changes in Response to Clinically Relevant Dosage Regimens. *Sci Rep* 2016; 6:26233. [PMID: 27195897](#)
17. Garonzik SM, Lenhard JR, Forrest A, Holden PN, **Bulitta JB**; Brian T. Tsuji. Defining the Active Fraction of Daptomycin against Methicillin-resistant *Staphylococcus aureus* (MRSA) using a Pharmacokinetic and Pharmacodynamic Approach; *PLoS One* 2016; 11:e0156131. [PMID: 27284923](#)
18. Rao GG, Ly NS, **Bulitta JB**, Soon RL, San Roman MD, Holden PN, Landersdorfer CB, Nation RL, Li J, Forrest A, Tsuji BT. Polymyxin B in combination with doripenem against heteroresistant *Acinetobacter baumannii*: pharmacodynamics of new dosing strategies. *J Antimicrob Chemother* 2016; ;71:3148-3156. [PMID: 27494922](#)
19. Rees V, **Bulitta JB**, Oliver A, Tsuji BT, Rayner C, Nation RL, Landersdorfer CB. Resistance suppression by high intensity, short duration aminoglycoside exposure against hypermutable and nonhypermutable *Pseudomonas aeruginosa*; *J Antimicrob Chemother* 2016; 71:3157-3167. [PMID: 27521357](#)
20. Kim TH, Kim M, Soyoung S, Chi Y-Ha, Paik S-H, Lee J-H, Yoo S, Youn Y, **Bulitta JB**, Joo S, Jeong S, Weon K-Y, Shin BS. Placental transfer and mammary excretion of a novel angiotensin receptor blocker fimasartan in rats. *BMC Pharmacol Toxicol*. 2016; 17:35. [PMID: 27459959](#)

21. Rao GG, Ly NS, Diep J, Forrest A, **Bulitta JB**, Holden PN, Nation RL, Li J, Tsuji BT. Combinatorial pharmacodynamics of polymyxin B and tigecycline against heteroresistant *Acinetobacter baumannii*. *Int J Antimicrob Agents*. 2016; 48:331-6. [PMID: 27449542](#)
22. Wittau M, Paschke S, Kurlbaum M, Scheele J, Ly NS, Hemper E, Kornmann M, Henne-Bruns D, **Bulitta JB**. Population Pharmacokinetics and Target Attainment of Ertapenem in Plasma and Tissue Assessed via Microdialysis in Morbidly Obese Patients after Laparoscopic Visceral Surgery. *Antimicrob Agents Chemother* 2016; 61. pii: e00952-16. [PMID: 27795367](#)
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107. **Bulitta JB**, Holford NHG (13 June, 2008). An Introductory Guide to Non-Compartmental Analysis. In: *Wiley Encyclopedia of Clinical Trials*, (Ralph B. D'Agostino, Lisa Sullivan, Joseph Massaro, eds.) Hoboken: John Wiley & Sons, Inc. [dx.doi.org/10.1002/9780471462422.eoct340](http://dx.doi.org/10.1002/9780471462422.eoct340)

***Papers published in 2004, 2005 and 2006:***

108. Sörgel F, **Bulitta JB**, Landersdorfer CB. What we know and what we want to know about beta-lactams. Pharmacokinetics and pharmacodynamics of beta lactams. *Pharm Unserer Zeit* 2006; 35: 438-51. [PMID: 17009789](#)

109. Roos JF, **Bulitta J**, Lipman J, Kirkpatrick CM. Pharmacokinetic-pharmacodynamic rationale for cefepime dosing regimens in intensive care units. *J Antimicrob Chemother* 2006; 58:987-93. [PMID: 16943209](#)
110. Krueger WA, **Bulitta JB**, Kinzig-Schippers M, Landersdorfer C, Holzgrabe U, Naber KG, Drusano GL, Sörgel F. Evaluation by Monte Carlo simulation of the pharmacokinetics of two doses of meropenem administered intermittently or as a continuous infusion in healthy volunteers. *Antimicrob Agents Chemother* 2005; 49:1881-9. [PMID: 15855510](#)
111. Pletz MW, Rau M, **Bulitta JB**, De Roux A, Burkhardt O, Kruse G, Kurowski M, Nord CE, Lode H. Ertapenem pharmacokinetics and impact on intestinal microflora, in comparison to those of ceftriaxone, after multiple dosing in male and female volunteers. *Antimicrob Agents Chemother* 2004; 48:3765-72. [PMID: 15388432](#)
112. Sörgel F, Landersdorfer CB, **Bulitta JB**. Two new antibiotics with special qualities: the pharmacokinetics of linezolid and telithromycin. *Pharm Unserer Zeit* 2004; 33:28-36. [PMID: 14968710](#)
113. Sörgel F, **Bulitta J**, Holzgrabe U. Paul Ehrlich, seine Forschungsgebiete und ihre Wirkung auf die Gegenwart - Gedanken zu seinem 150. Geburtstag. *Pharm. Ztg.* 2004; 149: 1038-42.
114. Sörgel F, Landersdorfer C, **Bulitta J**, Keppler B. Vom Farbstoff zum Rezeptor: Paul Ehrlich und die Chemie. *Nachrichten aus der Chemie* 2004; 52:777-782.

***Papers published between 1999 and 2003:***

115. Pletz MW, Preechachatchaval V, **Bulitta JB**, Allewelt M, Burkhardt O, Lode H. ABT-773: pharmacokinetics and interactions with ranitidine and sucralfate. *Antimicrob Agents Chemother* 2003; 47:1129-31. [PMID: 12604553](#)
116. Jetter A, Kinzig-Schippers M, Walchner-Bonjean M, Hering U, **Bulitta JB**, Schreiner P, Sörgel F, Fuhr U. Effects of grapefruit juice on the pharmacokinetics of sildenafil. *Clin Pharmacol Ther* 2002; 71:21-29. [PMID: 11823754](#)
117. Sörgel F, **Bulitta JB**, Kinzig-Schippers M. Pharmakokinetik der Chinolone. *Chemotherapie J* 2002; 11:25-33.
118. Sörgel F, **Bulitta JB**, Kinzig-Schippers M. How well do gyrase inhibitors work? The pharmacokinetics of quinolones. *Pharm Unserer Zeit* 2001; 30:418-27. [PMID: 11575179](#)
119. Sörgel F, Kinzig-Schippers M, **Bulitta JB**. Pharmakokinetisches Profil von Quinupristin-Dalfopristin. *Chemotherapie J* 2000; 9:42-53.
120. Sörgel F, Kinzig-Schippers M, Steinhauer S, **Bulitta JB**. Chemie und Pharmakokinetik von Linezolid. In von Eiff C. (Eds.): *Oxazolidinone: Eine neue Klasse von Antibiotika*. 47-60; SM Verlagsgesellschaft mbH, Wessobrunn; 1999.
121. Sörgel F, Kinzig-Schippers M, Sauber C, **Bulitta JB**. Pharmakokinetik und Pharmakodynamik von Levofloxacin. *Chemotherapie J* 1999; 8:19-27.
122. Kinzig-Schippers M, Fuhr U, Zaigler M, Dammeyer J, Rüsing G, Labedzki A, **Bulitta JB**, Sörgel F. Interaction of pefloxacin and enoxacin with the human cytochrome P450 enzyme CYP1A2. *Clin Pharmacol Ther* 1999; 65:262-74. [PMID: 10096258](#)

### Invited International Podium Presentations

1. Bulitta JB. Invited presentation on: Combination chemotherapy, Workshop on “Pharmacodynamics: How Can It Help You – Combination Chemotherapy?” at the National Institute of Allergy and Infectious Diseases (**NIAID**), National Institute of Health (NIH), November 30 to December 1, 2009.
2. Bulitta JB. Invited presentation on: Mechanism-based Modeling, Workshop on “Pharmacodynamics: How Can It Help You? – Mechanism-based Modeling” at the National Institute of Allergy and Infectious Diseases (**NIAID**), National Institute of Health (NIH), November 30 to December 1, 2009.
3. Bulitta JB, Bingölbali A, Landersdorfer CB. Invited presentation on: PK modelling: obtaining PK profiles despite sparse sampling. 20<sup>th</sup> European Congress of Clinical Microbiology and Infectious Diseases, Vienna, April 10 - 13, 2010.
4. Bulitta JB, Louie A, Tsuji BT, Brown AN, McSharry JJ, D’Hondt RE, Landersdorfer CB, Forrest A, Drusano GL: Invited presentation on: Antibiotics / Antivirals – Curing Infections and Preventing Bacterial and Viral Resistance and Persisters via Mechanism-Based Modeling and Simulation. 6<sup>th</sup> International Symposium on Measurement & Kinetics of In Vivo Drug Effects, Noordwijkerhout, April 21 - 24, 2010.
5. Bulitta JB. Mathematical Modeling and Pharmacokinetics/Pharmacodynamics. Presentation: 1212. 50<sup>th</sup> Interscience Conference on Antimicrobial Agents and Chemotherapy, Boston, MA, USA; September 12 - 15, 2010.
6. Bulitta JB. Modeling and Simulation of Penetration Data. Presentation: 1908. 50<sup>th</sup> Interscience Conference on Antimicrobial Agents and Chemotherapy, Boston, MA, USA; September 12 - 15, 2010.
7. Bulitta JB, Landersdorfer CB, Ly NS, Bergen PJ, Lee HJ, Patel K, Tsuji BT, Kirkpatrick CM, Nation RL, Li J, Forrest A. Mechanism-based modelling of antibiotics to optimally cure patients and prevent resistance: progress, gaps, and future perspectives. PAGANZ 2012 Population Approach Group in Australia & New Zealand, Melbourne, Australia. February 8, 2011.
8. Bulitta JB. From Receptor Occupancy to Patient Cure and Resistance Prevention: Mechanism-based Modelling to Optimize Antibiotic Combinations. 2011 PharmSciFair – European Federation for Pharmaceutical Sciences, Prague, Czech Republic, June 13 - 17, 2011.
9. Bulitta JB. Translational approaches to inform selection of rational antibiotic combinations for patients. First international conference on Polymyxins. Prato, Italy. May 3, 2013.
10. Bulitta JB. How preclinical pharmacometrics can help optimizing dosage regimens for patients? 20<sup>th</sup> North American International Society for the Study of Xenobiotics (ISSX) Meeting. Orlando, Florida, USA; October 21, 2015.
11. Bulitta JB. Next-Generation Antibiotic Combination Dosing Strategies to Combat Multidrug-Resistant Bacterial ‘Superbugs’. Porto Alegre, Brazil. June 15, 2016.
12. Bulitta JB. Antimicrobial Toxicodynamics of Oxazolidinones. ASM Microbe 2016, Boston, MA, USA; June 20, 2016.
13. Bulitta JB. Quantitative and Systems Pharmacology: An Innovative Tool to Rationally Optimize Combination Therapy. American Conference on Pharmacometrics ACOP7, Seattle, WA; October 24, 2016.
14. Bulitta JB. Invited presentation on: Translational PK/PD and Systems Pharmacology Modeling – Nonclinical PKPD models – animal models, **NIAID** Workshop ‘PKPD for Development of Therapeutics against Bacterial Pathogens’ at the National Institutes of Allergy and Infectious Diseases (NIAID), National Institute of Health (NIH), June 14-15, 2017.

### Invited International Research Presentations

15. Bulitta JB, Li J, Bergen PJ, Poudyal A, Yu HH, Owen RJ, Tsuji BT, Nation RL, Forrest A. New Mechanism-Based Models Linking Receptor Binding with Bacterial Responses for Optimizing Antimicrobial Drug Development and Therapy. 7<sup>th</sup> Annual Congress of International Drug Discovery Science and Technology (IDDST), Shanghai, China; October 22 – 25, 2009.
16. Bulitta JB, Louie A, Drusano GL. Mechanism-Based Approach to Combination Antimicrobial Chemotherapy. Gordon Research Conference on New Antibacterial Discovery & Development, Galveston, TX, USA, March 15, 2010.
17. Bulitta JB. Preventing resistance of bacterial “superbugs” by synergistic combinations of antibiotics. ASCEPT 2012 Sydney, Australia. December 5, 2012.

### Invited Full Courses Taught on Pharmacokinetic / Pharmacodynamic Modeling:

1. **Bulitta JB**. Invited post-graduate course instructor at the Department of Clinical Pharmacology, University of Cologne, Germany. 4-h lecture on: Introduction into pharmacokinetics, pharmacodynamics and in-vitro/in-vivo correlations using WinNonlin® Professional, April 1999.
2. **Bulitta JB**. Workshop: Pharmacokinetic and pharmacodynamic calculations with WinNonlin®. Institute for Clinical Pharmacology – Department of Clinical Pharmacology, University of Cologne, Cologne, Germany; November 17, 2001.
3. Landersdorfer CB, **Bulitta JB**. Workshop on: Efficient Structural Model Building via a Combined Simulation Estimation Approach using Berkeley Madonna and S-ADAPT. Department of Pharmaceutical Sciences, SUNY at Buffalo, Buffalo, NY; July 31 – Aug 1, 2009.
4. Landersdorfer CB, **Bulitta JB**. Introductory Workshop on Modeling and Simulation in Biomedical and Pharmaceutical Sciences. Monash University, Melbourne, Australia, October 27 - 29, 2009.
5. **Bulitta JB**. Introduction to Population PK/PD Modeling using S-ADAPT and SADAPT-TRAN. Ordway Research Institute, Albany, NY, USA, March 5-11, 2010.
6. **Bulitta JB**. Workshop: Introduction to Pharmacokinetics (PK), Pharmacodynamics (PD), and Population PK/PD modeling and Simulations using Berkeley Madonna and S-ADAPT, University of Würzburg, Würzburg, Germany; June 15 - 16, 2010.
7. **Bulitta JB**, Landersdorfer CB. Population PK/PD Modeling with S-ADAPT and SADAPT-TRAN. SUNY at Buffalo, Buffalo, NY, USA, August 20-21, 2010.
8. Landersdorfer CB, **Bulitta JB**. Introductory and Intermediate Workshop on Modeling and Simulation in Pharmaceutical & Biomedical Sciences. Monash University, Melbourne, Australia, March 15 to 18, 2011.
9. **Bulitta JB**, Landersdorfer CB. Population PK/PD Modeling. SUNY at Buffalo, Buffalo, NY, USA, September 23-24, 2011.
10. **Bulitta JB**, Landersdorfer CB, Forrest A. General Principles and Mechanism-based Mathematical Modelling of Anti-infectives to Maximize Bacterial Killing and Prevent Resistance. PAGANZ 2012 Population Approach Group in Australia & New Zealand, Melbourne, Australia. February 7, 2011.
11. Landersdorfer CB, **Bulitta JB**. Population Modeling and Simulation Workshop. SUNY at Buffalo, Buffalo, NY, USA, September 14-15, 2012.
12. Landersdorfer CB, **Bulitta JB**. Introductory and Intermediate Workshop on Modeling and Simulation with Berkeley Madonna in Pharmaceutical & Biomedical Sciences. SUNY at Buffalo, Buffalo, NY, USA, April 22 to 23, 2013.

13. Landersdorfer CB, **Bulitta JB**. Introductory and Intermediate Workshop on Modeling and Simulation with Berkeley Madonna in Pharmaceutical & Biomedical Sciences. SUNY at Buffalo, Buffalo, BY, USA, April 22 to 23, 2013.
14. Landersdorfer CB, **Bulitta JB**. Population PK/PD Modeling and Simulation Workshop. SUNY at Buffalo, Buffalo, BY, USA, September 16 to 17, 2013.
15. Landersdorfer CB, **Bulitta JB**. Introductory and Intermediate Workshop on Modeling and Simulation with Berkeley Madonna in Pharmaceutical & Biomedical Sciences. SUNY at Buffalo, Buffalo, BY, USA, September 11 to 12, 2014.
16. **Bulitta JB**. Population PK/PD Modeling & Simulation. Univ. of Florida, Gainesville, FL, USA, November 10, 2015.

**Invited Course Lectures Taught at International Conferences or International Universities on Pharmacokinetic / Pharmacodynamic Modeling:**

1. **Bulitta JB.** Quantitative Structure Pharmacokinetics Relationships (QSPKR): How to estimate pharmacokinetic parameters. World Conference on Magic Bullets - Pre-Conference Workshops; Nürnberg, Germany; September 8, 2004.
2. **Bulitta JB,** Jusko WJ. Mechanism Based PK/PD Models of Anti-infectives. Johnson & Johnson Workshop. Johnson & Johnson Pharmaceutical Research & Development, Raritan NJ, USA, August 24, 2007.
3. **Bulitta JB,** Landersdorfer CB. Making the most of the available pharmacometric software - the 'right' program for the 'right' task. Workshop lecture for SUNY Buffalo Graduate Students, July 31, 2007.
4. **Bulitta JB,** Tsuji BT, Forrest A. Benefits of Mathematical Modeling for Infectious Disease Drug Development – UB Pfizer Strategic Alliance. Pfizer, Groton, CT, USA, June 8, 2008.
5. **Bulitta JB,** Jelliffe RW. Overview and comparison of parametric and non-parametric estimation techniques. PK/PD workshop presentation at the 2nd World Conference on Magic Bullets – Ehrlich II, Nürnberg, Germany, October 3-5, 2008.
6. **Bulitta JB.** Overview of PK/PD software tools for estimation and optimal design – the 'right' program for the 'right' task. PK/PD workshop presentation at the 2nd World Conference on Magic Bullets – Ehrlich II, Nürnberg, Germany, October 3-5, 2008.
7. **Bulitta JB,** Tsuji BT, Ly NS, Jusko WJ, Forrest A. Mechanism-based models for anti-infectives – what do they have to offer? ISAP workshop presentation at the 2nd World Conference on Magic Bullets – Ehrlich II, Nürnberg, Germany, October 3-5, 2008.
8. **Bulitta JB.** Why population PK/PD? An Overview of Methods and Application. ISAP Workshop Presentation at the 48th Annual ICAAC / IDSA 46th Annual Meeting, Washington, DC, October 24, 2008.
9. **Bulitta JB.** Pre-Conference Workshop of the International Society for Anti-infective Pharmacology (ISAP) on: PK/PD models of resistance. 49<sup>th</sup> Interscience Conference on Antimicrobial Agents and Chemotherapy, San Francisco, CA, USA; September 11, 2009.
10. **Bulitta JB,** Landersdorfer CB, Jelliffe RW. Post-Conference Workshop of the Nonparametric Population Models – Properties & Capabilities. International Congress of TDM & Clinical Toxicology, Montreal, Canada; October 9, 2009.
11. Landersdorfer CB, **Bulitta JB.** Introduction to Pharmacokinetic and Pharmacodynamic Modeling and Simulation in Berkeley Madonna and S-ADAPT, October 27-29, 2009.
12. **Bulitta JB.** Invited presentation on: Combination chemotherapy, Workshop on “Pharmacodynamics: How Can It Help You – Combination Chemotherapy?” at the National Institute of Allergy and Infectious Diseases (NIAID), National Institute of Health (NIH), November 30 to December 1, 2009.
13. **Bulitta JB.** Invited presentation on: Mechanism-based Modeling, Workshop on “Pharmacodynamics: How Can It Help You? – Mechanism-based Modeling” at the National Institute of Allergy and Infectious Diseases (NIAID), National Institute of Health (NIH), November 30 to December 1, 2009.
14. **Bulitta JB.** PK/PD models of resistance – Understanding & limiting emergence of resistance via PK/PD modeling. ISAP Workshop Presentation at the 50<sup>th</sup> Annual ICAAC, Boston, MA, September 11, 2010.
15. **Bulitta JB.** Mathematical Modeling and Pharmacokinetics/Pharmacodynamics. Presentation: 1212. 50<sup>th</sup> Interscience Conference on Antimicrobial Agents and Chemotherapy, Boston, MA, USA; September 12 - 15, 2010.



16. **Bulitta JB.** Mechanism-based modeling to prevent the emergence of bacterial resistance. ISAP Workshop Presentation at the 51<sup>st</sup> Annual ICAAC, Chicago, IL, September 16, 2011.
17. **Bulitta JB.** Mechanism-based modeling to prevent the emergence of bacterial resistance. ISAP Workshop Presentation at the 52<sup>nd</sup> Annual ICAAC, San Francisco, CA, September 8, 2012.
18. **Bulitta JB.** Mathematical Modeling: Software Choices. ISAP Workshop Presentation at the 54<sup>th</sup> Annual ICAAC, Washington, DC, September 5, 2014.
19. **Bulitta JB.** Population PK/PD modelling: Software Choices. ESCMID Postgraduate Technical Workshop: Advanced Antimicrobial Pharmacokinetic and Pharmacodynamic Modelling & Simulation; Liverpool, UK, October 6-8, 2014.
20. **Bulitta JB.** Concepts in Pharmacokinetics & Pharmacodynamics and Translational Pharmacometrics. University of North Carolina; Chapel Hill, NC, December 12, 2014.
21. **Bulitta JB.** Translational PK/PD Modeling of Antibiotics – Making a Difference. ISAP Workshop Presentation at the 55<sup>th</sup> Annual ICAAC/ICC, Dan Diego, CA, September 17, 2015.
22. **Bulitta JB.** Demonstrating impact – bibliographic and other tools to let your CV shine. Departmental Seminar, Orlando, University of Florida, February 25, 2016.
23. **Bulitta JB.** Antibacterial Resistance: Preclinical PK/PD – Integrating Knowledge and Innovating Therapies. ESPAG / ISAP Workshop Presentation at the 27<sup>th</sup> ECCMID, Vienna Austria, April 21, 2017.

**Oral Presentations** (including invited presentations listed above)

1. Bulitta JB, Hess KJ, Sörgel F, Jaehde U, Kinzig-Schippers M. Modellierung der Resistenzentwicklung von *Staphylococcus epidermidis* gegen Gyrasehemmer. Oral Presentation at the PEG-Consensus-Conference for parenteral antibiotics; Frankfurt/Main, Germany; October 24, 1998.
2. Bulitta JB, Hess KJ, Sörgel F, Jaehde U, Kinzig-Schippers M. Modellierung der Resistenzentwicklung von *Staphylococcus epidermidis* gegen Gyrasehemmer. Abstr. KP27, Pre-symposium: Clinical pharmaceuticals in science and practice, Annual meeting of the German Pharmaceutical Society (Deutsche Pharmazeutische Gesellschaft, DPhG); Tübingen, Germany; November 5 - 6, 1998.
3. Bulitta JB. Introduction into pharmacokinetics, pharmacodynamics and in-vitro/in-vivo correlations using WinNonlin® Professional for physicians, pharmacists and scientists of other natural sciences. Institute for Clinical Pharmacology – Department of Clinical Pharmacology, University of Cologne, Cologne, Germany; April 23, 1999.
4. Bulitta JB. Workshop: Pharmacokinetic and pharmacodynamic calculations with WinNonlin®. Institute for Clinical Pharmacology – Department of Clinical Pharmacology, University of Cologne, Cologne, Germany; November 17, 2001.
5. Bulitta JB. Ab initio-Vorhersage der Pharmakokinetik von Chinolonen in silico. Pre-symposium: Annual meeting of the German Pharmaceutical Society (Deutsche Pharmazeutische Gesellschaft, DPhG); Würzburg, Germany; October 8 - 11, 2003.
6. Bulitta JB, Horn AH, Sörgel F, Holzgrave U, Clark T. Quantitative Struktur Pharmakokinetik Beziehungen bei Chinolonen – Vorhersage von Plasmakonzentrationen in silico. Oral Presentation at a Ph.D. student meeting of the German Pharmaceutical Society (DPhG); Freudenstadt-Lauterbad, Germany; March 26, 2004.
7. Bulitta JB. Quantitative Structure Pharmacokinetics Relationships: How to estimate pharmacokinetic parameters. World Conference on Magic Bullets - Pre-Conference Workshops; Nürnberg, Germany; September 8, 2004.
8. Bulitta JB, Holford NHG. Assessment of predictive performance of pharmacokinetic models based on plasma and urine data. PAGANZ 05 Population Approach Group in Australia & New Zealand, Brisbane, Australia; February 9, 2005.
9. Bulitta JB, Duffull SB, Kinzig-Schippers M, Holzgrave U, Stephan U, Sörgel F. Cystic Fibrosis Patients are Pharmacokinetically Comparable to Healthy Volunteers; 15th symposium of the International Society of Anti-Infective Pharmacology; Washington, DC, USA; December 19, 2005.
10. Bulitta JB. "Optimal" Dosing of Cystic Fibrosis Patients via Population PKPD & Monte Carlo Simulation. Invited seminar presentation at the Department of Pharmaceutical Sciences, SUNY Buffalo, NY, USA; January 10, 2006.
11. Bulitta JB, Duffull SB, Landersdorfer C, Drusano GL, Kinzig-Schippers M, Holzgrave U, Stephan U, Sörgel F. Optimized prolonged infusion of beta-lactams with allometric dosing for cystic fibrosis patients. Oral Presentation at a Ph.D. student meeting of the German Pharmaceutical Society (DPhG); Nürnberg-Heroldsberg, Germany; September 8, 2006.
12. Bulitta JB. Innovative techniques for selecting the dose of antibiotics in empiric therapy – focus on beta-lactams and cystic fibrosis patients. Public thesis defense, University of Würzburg, Würzburg, Germany, September 25, 2006.
13. Bulitta JB, Yang JC, Tsuji BT, Jusko WJ, Forrest A. Mechanistic PK/PD Models for the Inoculum Effect (over 5 Orders of Magnitude) of Colistin and Ceftazidime against *Pseudomonas aeruginosa*. Fellow Research Presentation Day of the School of Pharmacy and Pharmaceutical Sciences, SUNY Buffalo, NY, USA, June 8, 2007.
14. Bulitta JB, Landersdorfer CB. Making the most of the available pharmacometric software - the 'right' program for the 'right' task. Workshop lecture for SUNY Buffalo Graduate Students, July 31, 2007.
15. Bulitta JB, Jusko WJ. Mechanism Based PK/PD Models of Anti-infectives. Johnson & Johnson Workshop. Johnson & Johnson Pharmaceutical Research & Development, Raritan NJ, USA, August 24, 2007.
16. Bulitta JB, Yang JC, Tsuji BT, Jusko WJ, Forrest A. Modeling Growth & Killing of *P. aeruginosa* by Colistin for a Range of Bacterial Inocula – a Mechanism-based Population PK/PD Modeling Approach. Post-ICAAC meeting of the International Society of Anti-Infective Pharmacology (ISAP) in Chicago, IL, USA, September 20, 2007.
17. Bulitta JB, Tsuji BT, Yang JC, Ly NS, Forrest A, Jusko WJ. Optimization of Therapy against Multidrug-Resistant Gram-negative Pathogens by Mechanism-based Pharmacodynamic Modeling. Invited presentation, Cincinnati, OH, USA, January 15, 2008.

18. Bulitta JB, Landersdorfer CB, Schumitzky A, Van Guilder M, Jelliffe RW. Systematic Comparison of Nonparametric and Parametric Population Methods for a Multi-Subpopulation PK Model. Invited presentation, Cincinnati, OH, USA, January 16, 2008.
19. Bulitta JB, Yang JC, Tsuji BT, Ly NS, Jusko WJ, Forrest A. Mechanism-based Pharmacodynamic Modeling of Phenotypic Tolerance in *Pseudomonas aeruginosa* for Ceftazidime. PAGANZ 08 Population Approach Group in Australia & New Zealand, Dunedin, New Zealand; February 14, 2008.
20. Bulitta JB, Ly NS, Tsuji BT, Jusko WJ, Forrest A. Development of a mechanism-based pharmacodynamic model for tobramycin that can describe phenotypic tolerance of *P. aeruginosa* for a range of initial inocula. University of Otago, Dunedin, New Zealand; February 28, 2008.
21. Bulitta JB, Tsuji BT, Yang JC, Ly NS, Jusko WJ, Forrest A. Mechanism-based models for anti-infectives: How are they superior to traditional efficacy-driver analyses? Research Presentation. Pfizer, Groton, CT, USA, March 3, 2008.
22. Bulitta JB, Ly NS, Yang JC, Tsuji BT, Jusko WJ, Forrest A. Mechanism-based Pharmacodynamic Modeling of Phenotypic Tolerance in *Pseudomonas aeruginosa* for Beta-Lactams. Fellow Research Presentation Day of the School of Pharmacy and Pharmaceutical Sciences, SUNY Buffalo, NY, USA, June 2, 2008.
23. Forrest A, Tsuji BT, Bulitta JB. Future mechanistic PK/PD models for ID – UB Pfizer Strategic Alliance. Pfizer, Groton, CT, USA, June 10, 2008.
24. Bulitta JB, Jelliffe RW. Overview and comparison of parametric and non-parametric estimation techniques. PK/PD workshop presentation at the 2nd World Conference on Magic Bullets – Ehrlich II, Nürnberg, Germany, October 3-5, 2008.
25. Bulitta JB. Overview of PK/PD software tools for estimation and optimal design – the 'right' program for the 'right' task. PK/PD workshop presentation at the 2nd World Conference on Magic Bullets – Ehrlich II, Nürnberg, Germany, October 3-5, 2008.
26. Bulitta JB, Tsuji BT, Ly NS, Jusko WJ, Forrest A. Inverse and normal inoculum effects of antibiotics – a new paradigm for co-modeling the time-course of bacterial killing across a range of initial inocula. 2nd World Conference on Magic Bullets – Ehrlich II, Nürnberg, Germany, October 3-5, 2008.
27. Forrest A, Bulitta JB, Tsuji BT. Modeling the time course of bacterial growth and killing *in vitro* and *in vivo*. ISAP workshop presentation at the 2nd World Conference on Magic Bullets – Ehrlich II, Nürnberg, Germany, October 3-5, 2008.
28. Bulitta JB, Tsuji BT, Ly NS, Jusko WJ, Forrest A. Mechanism-based models for anti-infectives – what do they have to offer? ISAP workshop presentation at the 2nd World Conference on Magic Bullets – Ehrlich II, Nürnberg, Germany, October 3-5, 2008.
29. Bulitta JB, Tsuji BT, Forrest A\*. Motivation and philosophy for development of mechanistic PK/PD models in infectious diseases. 2nd World Conference on Magic Bullets – Ehrlich II, Nürnberg, Germany, October 3-5, 2008.
30. Landersdorfer CB, Kinzig M, Hennig FF, Bulitta JB, Holzgrabe U, Drusano GL, Sörgel F, Gusinde J. Bone Penetration of Antibiotics - Review and Future Perspectives including Bayesian Population PK / PD Methods. 2nd World Conference on Magic Bullets – Ehrlich II, Nürnberg, Germany, October 3-5, 2008.
31. Bulitta JB. Mechanistic Population Pharmacokinetics and Multiple-pool Cell Lifespan Models for Total and Unbound Paclitaxel for a New Nanodroplet Formulation vs. Taxol in Cancer Patients, Basel, Switzerland, October 7, 2008.
32. Bulitta JB. Overview, Applications, and Future Perspectives of Mechanism-based Population Pharmacokinetic Pharmacodynamic Modeling, Monash University, Melbourne, Australia, October 13, 2008.
33. Bulitta JB. Mechanism-based models for the inoculum effect of antibiotics against *Pseudomonas aeruginosa*. Invited presentation, Cincinnati, OH, USA, October 23, 2008.
34. Bulitta JB. Why population PK/PD? An Overview of Methods and Application. ISAP Workshop Presentation at the 48th Annual ICAAC / IDSA 46th Annual Meeting, Washington, DC, October 24, 2008.
35. Bergen PJ, Bulitta JB, Forrest A, Li J, Nation RL. Pharmacokinetic /Pharmacodynamic Investigation of Colistin against *Pseudomonas aeruginosa* using an *in vitro* Model. Abstract A-1671. 48th Annual ICAAC / IDSA 46th Annual Meeting, Washington, DC, October 25-28, 2008.
36. Poudyal A, Owen RJ, Bulitta JB, Forrest A, Tsuji BT, Turnidge JD, Spelman D, Howden BP, Nation RL, Li J. High Initial Inocula and Stationary Growth Phase Substantially Attenuate Killing of *Klebsiella pneumoniae* and *Acinetobacter baumannii* by Colistin. Abstract A-1673. 48th Annual ICAAC / IDSA 46th Annual Meeting, Washington, DC, October 25-28, 2008.
37. Bulitta JB, Tsuji BT, Forrest A. Benefits of Mathematical Modeling for Infectious Disease Drug Development – UB Pfizer Strategic Alliance. Pfizer, Groton, CT, USA, June 8, 2008.

38. Landersdorfer CB, Bulitta JB. Workshop on: Efficient Structural Model Building via a Combined Simulation Estimation Approach using Berkeley Madonna and S-ADAPT. Department of Pharmaceutical Sciences, SUNY at Buffalo, Buffalo, NY; July 31 – Aug 1, 2009.
39. Bulitta JB. Pre-Conference Workshop of the International Society for Anti-infective Pharmacology (ISAP) on: PK/PD models of resistance. 49<sup>th</sup> Interscience Conference on Antimicrobial Agents and Chemotherapy, San Francisco, CA, USA; September 11, 2009.
40. Bulitta JB, Landersdorfer CB, Jelliffe RW. Post-Conference Workshop of the Nonparametric Population Models – Properties & Capabilities. International Congress of TDM & Clinical Toxicology, Montreal, Canada; October 9, 2009.
41. Bulitta JB, Li J, Bergen PJ, Poudyal A, Yu HH, Owen RJ, Tsuji BT, Nation RL, Forrest A. New Mechanism-Based Models Linking Receptor Binding with Bacterial Responses for Optimizing Antimicrobial Drug Development and Therapy. 7<sup>th</sup> Annual Congress of International Drug Discovery Science and Technology (IDDST), Shanghai, China; October 22 – 25, 2009.
42. Landersdorfer CB, Bulitta JB. Introduction to Pharmacokinetic and Pharmacodynamic Modeling and Simulation in Berkeley Madonna and S-ADAPT, October 27-29, 2009.
43. Bulitta JB. Invited presentation on: Combination chemotherapy, Workshop on “Pharmacodynamics: How Can It Help You – Combination Chemotherapy?” at the National Institute of Allergy and Infectious Diseases (NIAID), National Institute of Health (NIH), November 30 to December 1, 2009.
44. Bulitta JB. Invited presentation on: Mechanism-based Modeling, Workshop on “Pharmacodynamics: How Can It Help You? – Mechanism-based Modeling” at the National Institute of Allergy and Infectious Diseases (NIAID), National Institute of Health (NIH), November 30 to December 1, 2009.
45. Bulitta JB. Antibakterielle Kombinationstherapie: Zusammenspiel von Wirk- und Resistenzmechanismen zur Eradikation von resistenten Bakterien und Persistenz. Pharmaceutical Seminars, Free University of Berlin, Berlin, Germany, February 22, 2010.
46. Bulitta JB, Louie A, Drusano GL. Mechanism-Based Approach to Combination Antimicrobial Chemotherapy. Gordon Research Conference on New Antibacterial Discovery & Development, Galveston, TX, USA, March 15, 2010.
47. Bulitta JB, Bingölbali A, Landersdorfer CB. Invited presentation on: PK modelling: obtaining PK profiles despite sparse sampling. 20<sup>th</sup> European Congress of Clinical Microbiology and Infectious Diseases, Vienna, April 10 - 13, 2010.
48. Bulitta JB. Invited presentation on: Combination therapy of *P. aeruginosa* with special reference to modeling of polymyxins *in vitro* and to preliminary animal models. Université catholique de Louvain, Brussels, Belgium, April 20, 2010.
49. Bulitta JB, Louie A, Tsuji BT, Brown AN, McSharry JJ, D'Hondt RE, Landersdorfer CB, Forrest A, Drusano GL. Invited presentation on: Antibiotics / Antivirals – Curing Infections and Preventing Bacterial and Viral Resistance and Persisters via Mechanism-Based Modeling and Simulation. 6<sup>th</sup> International Symposium on Measurement & Kinetics of In Vivo Drug Effects, Noordwijkerhout, April 21 - 24, 2010.
50. Bulitta JB. Workshop: Introduction to Pharmacokinetics, Pharmacodynamics, and Population PK/PD modeling and Simulations using Berkeley Madonna and S-ADAPT, University of Würzburg, Würzburg, Germany; June 15 - 16, 2010.
51. Bulitta JB, Landersdorfer CB. Population PK/PD Modeling with S-ADAPT and SADAPT-TRAN. SUNY at Buffalo, Buffalo, NY, USA, August 20-21, 2010.
52. Bulitta JB. PK/PD models of resistance – Understanding & limiting emergence of resistance via PK/PD modeling. ISAP Workshop Presentation at the 50<sup>th</sup> Annual ICAAC, Boston, MA, September 11, 2010.
53. Bulitta JB, D'Hondt RE, Brown D, VanScoy B, Kulawy R, Drusano GL, Louie A. Unique Penicillin-Binding Protein Occupancy Patterns Lead to *Pseudomonas aeruginosa* Persists or Can Cause Synergistic Killing. Abstract: A1-1140. 50<sup>th</sup> Interscience Conference on Antimicrobial Agents and Chemotherapy, Boston, MA, USA; September 12 - 15, 2010.
54. Bulitta JB. Mathematical Modeling and Pharmacokinetics/Pharmacodynamics. Presentation: 1212. 50<sup>th</sup> Interscience Conference on Antimicrobial Agents and Chemotherapy, Boston, MA, USA; September 12 - 15, 2010.
55. Bulitta JB. Modeling and Simulation of Penetration Data. Presentation: 1908. 50<sup>th</sup> Interscience Conference on Antimicrobial Agents and Chemotherapy, Boston, MA, USA; September 12 - 15, 2010.
56. Bulitta JB. From Receptor Occupancy to Patient Cure and Resistance Prevention: Mechanism-based Modelling to Optimize Antibiotic Combinations. 2011 PharmSciFair – European Federation for Pharmaceutical Sciences, Prague, Czech Republic, June 13 - 17, 2011.

57. Bulitta JB. PK/PD models of resistance – Understanding & limiting emergence of resistance via PK/PD modeling. ISAP Workshop Presentation at the 51st Annual ICAAC, Chicago, IL, September 16, 2011.
58. Bulitta JB, Landersdorfer CB, Ly NS, Bergen PJ, Lee HJ, Patel K, Tsuji BT, Kirkpatrick CM, Nation RL, Li J, Forrest A. Mechanism-based modelling of antibiotics to optimally cure patients and prevent resistance: progress, gaps, and future perspectives. PAGANZ 2012 Population Approach Group in Australia & New Zealand, Melbourne, Australia; February 8, 2012.
59. Bulitta JB. Utilizing insights on resistance mechanisms via quantitative mathematical models to optimize patient therapy and antibiotic drug development. Hospital University Son Espases, Palma de Mallorca, Spain; April 11, 2012.
60. Bulitta JB and Landersdorfer CB. Translational, mechanism-based modelling for early and late drug development to prospectively optimise mono- and combination therapy in patients and support rational decision making. Actelion, Allschwil, Switzerland. April 13, 2012.
61. Bulitta JB, Landersdorfer CB. Pharmacokinetic / pharmacodynamic models to prevent bacterial resistance and support rational development of new and old antibiotics. ISAP Workshop Presentation at the 52<sup>nd</sup> Annual ICAAC, San Francisco, CA, September 8, 2012.
62. Bulitta JB. Preventing resistance of bacterial “superbugs” by synergistic combinations of antibiotics. ASCEPT 2012 Sydney, Australia. December 5, 2012.
63. Bulitta JB. Beta-lactam antibiotics: Time to elucidate how to optimally use them – 85 years after their discovery. SUNY at Buffalo, Buffalo, NY, USA. April 23, 2013.
64. Bulitta JB. Translational approaches to inform selection of rational antibiotic combinations for patients. First international conference on Polymyxins. Prato, Italy. May 3, 2013.
65. Bulitta JB, Shan J, Velkov T, Landersdorfer CB. Synergistic Beta-lactam plus Aminoglycoside and Double Beta-lactam Combinations against High Inocula of *Acinetobacter baumannii*. 53<sup>rd</sup> Interscience Conference on Antimicrobial Agents and Chemotherapy, Denver, CO, USA; September 10 - 13, 2013.
66. Bulitta JB. Unleashing synergistic  $\beta$ -lactam antibiotic combinations via a systems pharmacology approach. SUNY at Buffalo, Buffalo, NY, USA. September 11, 2014.
67. Bulitta JB. Enabling mechanistically optimized antibiotic therapies via novel systems biology and pharmacometric approaches. University of North Carolina, Chapel Hill, NC, USA; September 18, 2014.
68. Bulitta JB. Developing Innovative Dosing Strategies based on Mechanistic Insights on Drug Action, Resistance and Pharmacokinetics. Wonkwang University, Iksan City, South Korea; September 30, 2014.
69. Bulitta JB. Bacterial cell wall synthesis: One of the most successful drug targets of all time. University of Florida, Orlando, FL, USA; December 9, 2014.
70. Bulitta JB. Innovative approaches to combat resistant bacterial superbugs via synergistic combinations of available and new antibiotics. University of North Carolina, Chapel Hill, NC, USA; December 12, 2014.
71. Bulitta JB. Targeting resistant bacterial ‘superbugs’ by rationally designed antibiotic combinations and developing new antibiotics. University of Florida, Gainesville, FL, USA; January 14, 2014.
72. Landersdorfer CB, Yadav R, Rogers K, Nation RL, Bulitta JB. Prospective Validation of Optimized Combinations against Carbapenem-Resistant *Acinetobacter baumannii* (CRAB) via Dynamic in vitro Hollow Fiber Infection Model (HFIM). ICAAC / ICC 2015, San Diego, CA, USA; September 18, 2015.
73. Bulitta JB. How preclinical pharmacometrics can help optimizing dosage regimens for patients? 20th North American International Society for the Study of Xenobiotics (ISSX) Meeting. Orlando, FL, USA; October 21, 2015.
74. Bulitta JB. Quantitative and System Pharmacology approaches for translational antibiotic drug development. Lake Nona Leadership Council Meeting, CPSP, UF. Orlando, FL, USA; February 23, 2016.
75. Bulitta JB. Next-Generation Antibiotic Combination Dosing Strategies to Combat Multidrug-Resistant Bacterial ‘Superbugs’. Annual meeting of the III Brazilian Association of Pharmaceutical Sciences (ABCF). Porto Alegre RS, Brazil; June 14, 2016.
76. Bulitta JB, Velkov T, Rogers K, Shan J, Oliver A, Nation RL, Boyce JD, Tsuji BT, Landersdorfer CB. Penicillin-Binding Protein Occupancy Patterns Determine Phenotypic Tolerance of *Pseudomonas aeruginosa* at High Bacterial Density. Session 247. ASM Microbe 2016, Boston, MA, USA; Jun 19, 2016.
77. Bulitta JB. Antimicrobial Toxicodynamics of Oxazolidinones. ASM Microbe 2016, Boston, MA, USA; June 20, 2016.
78. Bulitta JB. Quantitative and Systems Pharmacology: An Innovative Tool to Rationally Optimize Combination Therapy. American Conference on Pharmacometrics ACOP7, Seattle, WA; October 24, 2016.

79. **Bulitta JB.** Antibacterial Resistance: Preclinical PK/PD – Integrating Knowledge and Innovating Therapies. ESPAG / ISAP Workshop Presentation at the 27<sup>th</sup> ECCMID, Vienna Austria, April 21, 2017.
80. Bulitta JB. Invited presentation on: Translational PK/PD and Systems Pharmacology Modeling – Nonclinical PKPD models – animal models, NIAID Workshop ‘PKPD for Development of Therapeutics against Bacterial Pathogens’ at the National Institutes of Allergy and Infectious Diseases (NIAID), National Institute of Health (NIH), June 14-15, 2017.

### Conference Presentations

1. Sörgel F, **Bulitta J**, Naber KG, Kinzig-Schippers M, Jaehde U. Standardized measurement of sweat concentration of quinolones and their potential relationship to selection of resistant mutants of *staphylococcus epidermidis*. Abstr. T115, 2<sup>nd</sup> European Congress of Chemotherapy (ECC) and 7<sup>th</sup> Biennial Conference on Antiinfective Agents and Chemotherapy, Hamburg, Germany; May 10 - 13, 1998.
2. Sörgel F, **Bulitta J**, Gatchev E, Kinzig-Schippers M, Rüsing G, Doser K, Thyroff-Friesinger U, Rauch C, Vlahov V. Results from pharmacokinetic studies analyzed by most modern LC-MS/MS – do we need to rewrite the PK of “old” antibiotics? Astr. M 336, 2<sup>nd</sup> European Congress of Chemotherapy (ECC) and 7<sup>th</sup> Biennial Conference on Antiinfective Agents and Chemotherapy, Hamburg, Germany; May 10 - 13, 1998.
3. Sauber C, Rüsing G, **Bulitta J**, Kinzig-Schippers M, Sörgel F. Analysis of rifampicin, isoniazid and pyrazinamide by LC-MS/MS in plasma. Abstr. 276, The 46<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics; Orlando, Florida/USA; May 31 - June 4, 1998.
4. Vycudilik W, Rüsing G, Sauber C, Kinzig-Schippers M, **Bulitta J**, Sörgel F. Application of LC-MS/MS to pharmacokinetic and forensic issues of glibenclamide. Abstr. 279, The 46<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics; Orlando, Florida/USA; May 31 - June 4, 1998.
5. Sauber C, Vycudilik W, Kinzig-Schippers M, Rüsing G, **Bulitta J**, Holzgrabe U, Sörgel F. Die LC-MS/MS als Methode zur Klärung pharmakokinetischer und forensischer Fragen zu Glibenclamid. Abstr. KP5, Pre-symposium: Clinical pharmaceuticals in science and practice: Poster presentation: Rational use of antibiotics at the annual meeting of the German Pharmaceutical Society (Deutsche Pharmazeutische Gesellschaft, DPhG); Tübingen, Germany; November 5 - 6, 1998.
6. Rüsing G, Kinzig-Schippers M, Rangoonwala R, Vlahov V, **Bulitta J**, Bacracheva N, Hess KJ, Nickel P, Sörgel F. Bioinäquivalenz als Faktor zunehmender Resistenzentwicklung gegen Tuberkulostatika. Abstr. KP11, Pre-symposium: Clinical pharmaceuticals in science and practice: Poster presentation: Rational use of antibiotics at the annual meeting of the German Pharmaceutical Society (Deutsche Pharmazeutische Gesellschaft, DPhG); Tübingen, Germany; November 5 - 6, 1998.
7. Rüsing G, **Bulitta J**, Müller C, Kinzig-Schippers M, Sörgel F. Sensitive analysis of naloxon-3-glucuronide by LC-MS/MS in plasma. Abstr. 2170, AAPS Annual Meeting; San Francisco, California/USA; November 15 - 19, 1998.
8. **Bulitta J**, Hess KJ, Sörgel F, Kinzig-Schippers M. Modeling the emergence of resistance against quinolone antibiotics in *Staphylococcus epidermidis*. Abstr. 2357, AAPS Annual Meeting; San Francisco, California/USA; November 15 - 19, 1998.
9. Kinzig-Schippers M, Rangoonwala R, Vlahov V, Rüsing G, **Bulitta J**, Bacracheva N, Hess KJ, Sörgel F. Bioinequivalence of tuberculostatics as a possible contributing factor to emergence of pathogen resistance. Abstr. 3437, AAPS Annual Meeting; San Francisco, California/USA; November 15 - 19, 1998.
10. Jetter A, **Bulitta J**, Zaigler M, Sauber C, Fuhr U, Kinzig-Schippers M, Sörgel F. Modelling of intestinal absorption of clavulanic acid. Abstr. A19 (podium discussion), Annual congress for clinical pharmacology 1999; Berlin, Germany; June 10 – 12, 1999.
11. Steinhauer S, Kinzig-Schippers M, Kleinschnitz M, Sauber C, **Bulitta J**, Sörgel F. Most sensitive analysis of felodipine in human plasma by LC-MS/MS after special sample work-up. Abstr. 2178, AAPS Annual Meeting; New Orleans, Louisiana/USA; November 14 - 18, 1999.
12. Sauber C, Kinzig-Schippers M, Rüsing G, Heuberger S, **Bulitta J**, Holzgrabe U, Sörgel F. Determination of trovafloxacin by LC-MS/MS in human plasma and urine. Abstr. 2841, AAPS Annual Meeting; New Orleans, Louisiana/USA; November 14 - 18, 1999.
13. Steinhauer S, Kinzig-Schippers M, Rüsing G, Wenner M, Heuberger S, Bulitta C, **Bulitta J**, Sörgel F. Sensitive analysis of roxithromycin in human plasma by LC-MS/MS. Abstr. 2844, AAPS Annual Meeting; New Orleans, Louisiana/USA; November 14 - 18, 1999.
14. Rüsing G, Kinzig-Schippers M, Sauber C, Steinhauer S, Wahode H, **Bulitta J**, Holzgrabe U, Sörgel F. Sensitive analysis of diclofenac in human plasma by LC-MS/MS after special sample work-up. Abstr. 2847, AAPS Annual Meeting; New Orleans, Louisiana/USA; November 14 - 18, 1999.
15. Sörgel F, Allen A, Pay V, Bygate E, Kinzig-Schippers M, **Bulitta J**, Bird N, Naber KG. Distribution of gemifloxacin into saliva, sweat, tears, and nasal secretion in healthy volunteers. Abstr. M117, 3<sup>rd</sup> European Congress of Chemotherapy; Madrid, Spain; May 7 - 10, 2000.
16. **Bulitta J**, Kinzig-Schippers M, Naber CK, Naber KG, Sauber C, Kleinschnitz M, Wahode H, Rodamer M, Sörgel F. Limitations in the use of drug cocktails to compare the pharmacokinetics of drugs: ciprofloxacin vs. levofloxacin. Abstr. 506, 40<sup>th</sup> Interscience Conference on Antimicrobial Agents and Chemotherapy; Toronto, Canada; September 17 - 20, 2000.

17. Kinzig-Schippers M, Hinder M, Loos U, Sauber C, **Bulitta J**, Holzgrabe U, Sörgel F. Tissue Penetration of Cefditoren into Bronchial Mucosa and Epithelial Lining Fluid in Patients Undergoing Fiberoptic Bronchoscopy. Poster T3282, AAPS Annual Meeting; Denver, Colorado/USA; October 21 - 25, 2001.
18. **Bulitta J**, Kinzig-Schippers M, Naber CK, Naber KG, Sauber C, Kleinschnitz M, Wahode H, Rodamer M, Sörgel F. Limitations in the use of drug cocktails to compare the pharmacokinetics of drugs: ciprofloxacin vs. levofloxacin. Poster R5168, AAPS Annual Meeting; Denver, Colorado/USA; October 21 - 25, 2001.
19. **Bulitta J**, Horkovics-Kovats S, Borek M, Skott A, Illauer M, Rodamer M, Kinzig-Schippers M, Sörgel F. Self-Inhibition of Clarithromycin's Metabolism in Humans at Steady-State. Poster A-1625, 43<sup>rd</sup> Interscience Conference on Antimicrobial Agents and Chemotherapy; Chicago, Illinois/USA; September 14 - 17, 2003.
20. Sörgel F, **Bulitta J**, Kinzig-Schippers M, Landersdorfer C, Tomalik-Scharte D, Jetter A, Fuhr U, Cascorbi I. Dosing of antiinfectives – "One size fits all" vs. individualized therapy. Poster P K18, Annual meeting of the German Pharmaceutical Society (Deutsche Pharmazeutische Gesellschaft, DPhG); Würzburg, Germany; October 8 - 11, 2003.
21. **Bulitta J**, Kinzig-Schippers M, Jetter A, Tomalik-Scharte D, Szymanski J, Fuhr U, Illauer M, Skott A, Sörgel F. Pharmacokinetics and pharmacodynamics of subcutaneous interferon alpha-2b. Poster P K2, Annual meeting of the German Pharmaceutical Society (Deutsche Pharmazeutische Gesellschaft, DPhG); Würzburg, Germany; October 8 - 11, 2003.
22. Gareis J, Hüttner S, Kinzig-Schippers M, **Bulitta J**, Heß K-J, Sörgel F. Evidence of opiates in human urine after consumption of poppy seed cake. Poster P K5, Annual meeting of the German Pharmaceutical Society (Deutsche Pharmazeutische Gesellschaft, DPhG); Würzburg, Germany; October 8 - 11, 2003.
23. Rodamer M, Horkovics-Kovats S, Borek M, Skott A, Illauer M, **Bulitta J**, Kinzig-Schippers M, Sörgel F. Self-inhibition of clarithromycin's metabolism in humans at steady-state. Poster P K13, Annual meeting of the German Pharmaceutical Society (Deutsche Pharmazeutische Gesellschaft, DPhG); Würzburg, Germany; October 8 - 11, 2003.
24. Hüttner S, Holt DW, **Bulitta J**, Heß K-J, Sörgel F. Effects of freshly squeezed grapefruit juice on CYP 3A4 activity. Poster P K7, Annual meeting of the German Pharmaceutical Society (Deutsche Pharmazeutische Gesellschaft, DPhG); Würzburg, Germany; October 8 - 11, 2003.
25. Jakob V, Rodamer M, **Bulitta J**, Kinzig-Schippers M, Heß K-J, Sörgel F. Prediction of caffeine half-life by subject age. Poster P K8, Annual meeting of the German Pharmaceutical Society (Deutsche Pharmazeutische Gesellschaft, DPhG); Würzburg, Germany; October 8 - 11, 2003.
26. **Bulitta J**, Horkovics-Kovats S, Borek M, Hüttner S, Kinzig-Schippers M, Sörgel F. Self-inhibition of clarithromycin's metabolism in humans at steady-state; Abstract no. 081, World Conference on Magic Bullets; Nürnberg, Germany; September 9 - 11, 2004.
27. **Bulitta J**, Fuhr U, Landersdorfer C, Tomalik-Scharte D, Szymanski J, Kinzig-Schippers M, Sörgel F. Pharmacokinetics and pharmacodynamics of subcutaneous interferon alpha-2b; Abstract no. 082, World Conference on Magic Bullets; Nürnberg, Germany; September 9 - 11, 2004.
28. Naber KG, **Bulitta J**, Jakob V, Kinzig-Schippers M, Sörgel F. Limitations in the use of drug cocktails to compare the pharmacokinetics of drugs: ciprofloxacin vs. levofloxacin; Abstract no. 213, World Conference on Magic Bullets; Nürnberg, Germany; September 9 - 11, 2004.
29. Wagenlehner F, Naber KG, Kinzig-Schippers M, **Bulitta J**, Sörgel F. Plasma concentrations, urinary excretion and bactericidal activity of linezolid versus ciprofloxacin in healthy volunteers after a single oral dose; Abstract no. 255, World Conference on Magic Bullets; Nürnberg, Germany; September 9 - 11, 2004.
30. Rodamer M, Fuhr U, Tomalik-Scharte D, Jetter A, **Bulitta J**, Kinzig-Schippers M, Sörgel F. Personalized isoniazid dosing based on genotyping for arylamine *N*-Acetyltransferase Type 2; Abstract no. 447, World Conference on Magic Bullets; Nürnberg, Germany; September 9 - 11, 2004.
31. Sakka SG, Glauner A, **Bulitta J**, Kinzig-Schippers M, Sörgel F. Continuous versus intermittent bolus administration of imipenem in critically ill patients with pneumonia; Abstract no. 467, World Conference on Magic Bullets; Nürnberg, Germany; September 9 - 11, 2004.
32. Sörgel F, **Bulitta J**, Kinzig-Schippers M, Hüttner S. Dosing of antiinfectives - "one size fits all" vs. individualized therapy; Abstract no. 517, World Conference on Magic Bullets; Nürnberg, Germany; September 9 - 11, 2004.
33. Sörgel F, **Bulitta J**, Horkovics-Kovats S, Kinzig-Schippers M, Borek M, Nesme B, Jakob V. Crucial role of "appropriate" reference product and food effects in clinical trials - a plea for drug level measurements in phase III – trials; AAPS Annual Meeting, Chicago, Illinois/USA; October 30 - November 2, 2004.
34. Horkovics-Kovats S, Nesme B, Kinzig-Schippers M, **Bulitta J**, Sörgel F. Gender Differences in the Metabolism of Clarithromycin after Oral Doses of 500 mg; Presentation number: A-8; Interscience Conference on Antimicrobial Agents and Chemotherapy, Washington, DC, USA; December 16 - 19, 2005.



35. **Bulitta J**, Duffull SB, Kinzig-Schippers M, Holzgrave U, Stephan U, Sörgel F. Cystic Fibrosis Patients are Pharmacokinetically Comparable to Healthy Volunteers; Presentation number: A-12; Interscience Conference on Antimicrobial Agents and Chemotherapy, Washington, DC, USA; December 16 - 19, 2005.
36. **Bulitta J**, Kinzig-Schippers M, Holzgrave U, Sörgel F, Holford NHG. Replicate Design to Study the Population Pharmacokinetics of Piperacillin. Description of Saturable Elimination and Application to the Design of Optimal Dosage Regimens; Presentation number: A-30; Interscience Conference on Antimicrobial Agents and Chemotherapy, Washington, DC, USA; December 16 - 19, 2005.
37. **Bulitta J**, Horkovics-Kovats S, Kinzig-Schippers M, Holzgrave U, Sörgel F, Holford NHG. Use of Replicated Design to Assess Between Occasion Variability of Oral Amoxicillin / Clavulanic Acid and for Monte Carlo Simulations; Presentation number: A-32; Interscience Conference on Antimicrobial Agents and Chemotherapy, Washington, DC, USA; December 16 - 19, 2005.
38. **Bulitta J**, Lodise TP, Drusano GL, Kinzig-Schippers M, Holzgrave U, Sörgel F. Bias and Uncertainty of Monte Carlo Simulations with Beta-Lactams Abstract 969, 15th Annual Meeting of the Population Approach Group in Europe (PAGE); Brugge, Belgium; June 14 - 16, 2006.
39. Landersdorfer C, Kirkpatrick CMJ, Kinzig-Schippers M, **Bulitta J**, Holzgrave U, Sörgel F. New Insights into the Most Commonly Studied Drug Interaction with Antibiotics: Pharmacokinetic Interaction between Ciprofloxacin, Gemifloxacin and Probenecid at Renal and Non-renal Sites. Abstract 882, 15th Annual Meeting of the Population Approach Group in Europe (PAGE); Brugge, Belgium; June 14 - 16, 2006.
40. **Bulitta J**, Landersdorfer C, Kinzig-Schippers M, Jakob V, Rodamer M, Drusano GL, Thyroff-Friesinger U, Holzgrave U, Sörgel F. Population Pharmacokinetics, Pharmacodynamics and Breakpoints of Cefuroxime Axetil in Healthy Volunteers via Monte Carlo Simulation. Presentation number: A-1119; 46<sup>th</sup> Interscience Conference on Antimicrobial Agents and Chemotherapy, San Francisco, CA, USA; September 27 - 30, 2006.
41. Landersdorfer C, Gusinde J, Kinzig-Schippers M, Hennig F, **Bulitta J**, Holzgrave U, Drusano GL, Sörgel F. Pharmacokinetic-pharmacodynamic profile of moxifloxacin in bone evaluated by Monte Carlo simulation. Poster T2332; 2006 AAPS Annual Meeting, San Antonio, TX, USA; October 29 - November 2, 2006.
42. **Bulitta J**, Drusano GL, Landersdorfer C, Holzgrave U, Kinzig-Schippers M, Stephan U, Sörgel F. Assessment of Optimized Dosage Regimens for Beta-lactams with Ceftazidime as a Probe by Population Pharmacokinetics and Monte Carlo Simulation. Poster T3373; 2006 AAPS Annual Meeting, San Antonio, TX, USA; October 29 - November 2, 2006.
43. Landersdorfer C, Kirkpatrick CMJ, **Bulitta J**, Kinzig-Schippers M, Holzgrave U, Drusano GL, Sörgel F. Population Pharmacokinetics of Piperacillin at Two Dose Levels: Influence of Nonlinear Pharmacokinetics on the Pharmacodynamic Profile. Poster T3374; 2006 AAPS Annual Meeting, San Antonio, TX, USA; October 29 - November 2, 2006.
44. **Bulitta J**, Landersdorfer C, Drusano GL, Kinzig-Schippers M, Holzgrave U, Stephan U, Sörgel F. Characterizing Absorption in Cystic Fibrosis Patients: Population Pharmacokinetics and Pefloxacin as a Probe. Poster W4055; 2006 AAPS Annual Meeting, San Antonio, TX, USA; October 29 - November 2, 2006.
45. **Bulitta J**, Duffull SB, Landersdorfer C, Drusano GL, Kinzig-Schippers M, Holzgrave U, Stephan U, Sörgel F. Pharmacodynamic Comparison of Cystic Fibrosis Patients and Healthy Volunteers by Population Pharmacokinetics and Monte Carlo Simulation: Poster W4056; 2006 AAPS Annual Meeting, San Antonio, TX, USA; October 29 - November 2, 2006.
46. Landersdorfer C, Kirkpatrick CMJ, Kinzig-Schippers M, **Bulitta J**, Holzgrave U, Sörgel F. Doubling Time above MIC of Flucloxacillin by Pharmacokinetic Interaction with Piperacillin. Poster W4060; 2006 AAPS Annual Meeting, San Antonio, TX, USA; October 29 - November 2, 2006.
47. Yang JC, **Bulitta JB**, Forrest A, Tsuji BT. High Inocula *Pseudomonas aeruginosa* Attenuates Colistin Bactericidal Activity and Alters Pharmacodynamics. Abstract A-847. 47<sup>th</sup> Interscience Conference on Antimicrobial Agents and Chemotherapy, Chicago, IL, USA; September 17 - 20, 2007.
48. **Bulitta JB**, Yang J, Tsuji B, Jusko W, Forrest A. Mechanistic PK/PD Models for the Inoculum Effect (over 5 Orders of Magnitude) of Colistin and Ceftazidime against *Pseudomonas aeruginosa*. Abstract 1829; 2007 AAPS Annual Meeting, San Diego, CA, USA; November 11 - 15, 2007.
49. **Bulitta JB**, Yang J, Forrest A, Tsuji B. Mechanistic PK/PD Model for the Effect of Global Regulatory Systems on Time Course of Pharmacodynamics of Colistin against *Pseudomonas aeruginosa*. Abstract 1844; 2007 AAPS Annual Meeting, San Diego, CA, USA; November 11 - 15, 2007.
50. **Bulitta JB**, Kinzig M, Landersdorfer C, Naber K, Rodamer M, Jakob V, Wagenlehner F, Drusano G, Holzgrave U, Sörgel F. Pharmacokinetic / Pharmacodynamic Comparison of Ciprofloxacin and Levofloxacin by a Population PK Meta-Analysis and Monte Carlo Simulation. Abstract 3359; 2007 AAPS Annual Meeting, San Diego, CA, USA; November 11 - 15, 2007.
51. Landersdorfer C, Kinzig M, **Bulitta J**, Jakob V, Holzgrave U, Drusano G, Sörgel F. Penetration into Bone and Pharmacodynamic Profile of Amoxicillin and Clavulanic Acid evaluated by Population Pharmacokinetics and

- Monte Carlo Simulation. Abstract 1968; 2007 AAPS Annual Meeting, San Diego, CA, USA; November 11 - 15, 2007.
52. **Bulitta JB**, Landersdorfer CB, Schumitzky A, Van Guilder M, Jelliffe RW. Comparison of Bias and Precision of Nonparametric and Parametric Population Methods assessed via Nonparametric Bootstrap Methods in NPAG and NONMEM. American Conference on Pharmacometrics (ACoP), Tucson, AZ, March 9-12, 2008.
  53. **Bulitta JB**, Zhao P, Arnold RD, Kessler DR, Daifuku R, Pratt J, Luciano G, Hanauske A-R, Gelderblom H, Awada A, Jusko WJ. Mechanistic Population Pharmacokinetics of Total and Unbound Paclitaxel for a New Nanodroplet Formulation vs. Taxol in Cancer Patients – A New Class of Models Based on Solubility Limited Drug Disposition. American Conference on Pharmacometrics (ACoP), Tucson, AZ, March 9-12, 2008.
  54. **Bulitta JB**, Ly NS, Tsuji BT, Jusko WJ, Forrest A. Mechanism-based Models for Growth and Killing of *Pseudomonas aeruginosa* by Tobramycin to Quantify and Predict the Inoculum Effect. American Conference on Pharmacometrics (ACoP), Tucson, AZ, March 9-12, 2008.
  55. Landersdorfer CB, **Bulitta JB**, Schumitzky A, Van Guilder M, Jelliffe RW. Comparison of Nonparametric and Parametric Population Methods based on a Monte Carlo Simulation Study with Indirect Response Models I to IV in NPAG and NONMEM. American Conference on Pharmacometrics (ACoP), Tucson, AZ, March 9-12, 2008.
  56. Ly NS, **Bulitta JB**, Tsuji BT, Forrest A, Jusko WJ. Tolerance of *Pseudomonas aeruginosa* to antibiotics at high inocula. Fourth annual Celebration of Academic Excellence, Buffalo, NY, April 17, 2008.
  57. **Bulitta JB**, Zhao P, Arnold RD, Kessler DR, Daifuku R, Pratt J, Luciano G, Hanauske A-R, Gelderblom H, Awada A, Jusko WJ. *In Vivo* Release and Population Pharmacokinetics of Total and Unbound Paclitaxel in Cancer Patients. Sigma Xi Research Day, Buffalo, NY, April 17, 2008.
  58. Ly NS, **Bulitta JB**, Yang JC, Tsuji BT, Forrest A, Jusko WJ. Tolerance of *Pseudomonas aeruginosa* to Antibiotics at High Inocula. UB-Pfizer Alliance, Groton, CT, June 11, 2008.
  59. Ly NS, **Bulitta JB**, Forrest A, Yang JC, Tsuji BT, Jusko WJ. An Efficient Approach to Model the Inoculum Effect of Beta-lactams by Partially Mechanistic Models. UB-Pfizer Alliance, Groton, CT, June 11, 2008.
  60. **Bulitta JB**, Ly NS, Forrest F, Jusko WJ, Tsuji BT. Mechanism-Based Pharmacokinetic / Pharmacodynamic Model for the Inverse Inoculum Effect of Imipenem against *Pseudomonas aeruginosa*. UB-Pfizer Alliance, Groton, CT, June 11, 2008.
  61. Harigaya Y, **Bulitta JB**, Forrest F, Field AC, Ngo DQ, Tsuji BT. Emergence of Resistance in MRSA at Simulated Vancomycin Epithelial Lining Fluid Concentrations. UB-Pfizer Alliance, Groton, CT, June 11, 2008.
  62. Ly NS, **Bulitta JB**, Forrest A, Yang JC, Tsuji BT, Jusko WJ. An Efficient Approach to Model the Inoculum Effect of Ceftazidime by Partially Mechanistic Models. Great Lake Symposium '08, University of Toronto, Toronto, Canada; July 18-20, 2008.
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