

BIOGRAPHICAL SKETCH

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NAME Brookie M. Best, PharmD, MAS	POSITION TITLE Assistant Professor of Pharmacy and Pediatrics		
eRA COMMONS USER NAME (credential, e.g., agency login) MSBEST			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
University of California, San Diego (UCSD)	B.S.	1994	Chemistry/Chem. Education
University of California, San Francisco (UCSF)	Pharm.D.	1999	Pharmacy
NIH/CIHR 2 nd Annual Summer Institute, Denver	Certificate	2006	Maternal-Fetal Pharmacology
University of California, San Diego	M.A.S.	2007	Clinical Research

A. Personal Statement

I have a broad background in clinical pharmacology, with specific training and expertise in several areas. As a postdoctoral NRSA-NICHD fellow, I carried out clinical pharmacology studies of therapeutic drug monitoring of antiretrovirals in adults with HIV, and pharmacokinetic studies of antiretrovirals in women during pregnancy and postpartum. As faculty at UCSD, I expanded my research of antiretrovirals in unique body compartments/conditions to include pharmacology of antiretrovirals in the cerebrospinal fluid. I continue to pursue appropriate therapy for women during pregnancy. As PI, I have completed a studies of lopinavir pharmacokinetics and pharmacogenomics in children and adults, and am currently leading a multi-center IMPAACT protocol to examine the pharmacokinetics of psychiatric medications in HIV-infected and uninfected children and adolescents. I am actively involved in training student pharmacists in research methods, and am PI of the Health Sciences Predoctoral Research Training in Maternal and Pediatric Pharmacology T35 grant supported by NICHD.

B. Positions and Honors

Positions and Employment

1999-2000 Pharmacy Practice Resident, UCSD Medical Center
 2000-Present Assistant Clinical Professor of Pharmacy, Non-salaried, UCSF, San Diego Student Program
 2001-2004 NIH/NICHD NRSA Fellow in Pediatric Pharmacology Research, UCSD/Rady Children's Hospital San Diego (RCHSD) Pediatric Pharmacology Research Unit
 2003-2004 Lecturer, UCSD, Skaggs School of Pharmacy and Pharmaceutical Sciences
 2004-Present Assistant Professor of Pharmacy and Pediatrics, University of California, San Diego

Professional Experience

NIAID/NICHD - International Maternal Pediatric and Adolescent AIDS Clinical Trials Group (IMPAACT)
 2000-Present Protocol Pharmacologist, PACTG/IMPAACT (NIAID/NICHD) studies 254, 1026s, 1063
 2001-2002 Member, NIAID PACTG Therapeutic Drug Monitoring Committee
 2007-Present Protocol Chair, P1080: "Psychiatric and Antiretroviral Concentrations in HIV-infected and Uninfected Children and Adolescents"
National Institutes of Health – National Institute of Child Health and Human Development
 2007 Member, Best Pharmaceuticals Act for Children of 2002: Pediatric Infectious Diseases Working Group, NICHD/NIH & Member, MRSA in Pediatrics Task Force, NICHD/NIH
 2007 Moderator, Strategies to Improve Understanding and Treatment of Pediatric Infectious Diseases Meeting: Clinical Protocol Development Session, NICHD/NIH
NICHD - Pediatric Pharmacology Research Unit (PPRU) Network
 2001-Present Protocol Reviewer & Pharmacologist, PPRU

Program Director/Principal Investigator (Last, First, Middle): **Best, Brookie M.**

2008-Present Member, PPRU Network Internal Operations Committee

2008-Present Principal Investigator, PPRU Network study, "Comparison of Lopinavir/Ritonavir (Kaletra) Pharmacokinetics in Pediatric Patients Taking Crushed Versus Whole Tablets"

Editorial Board Member, 2010 – 2013, Journal of Acquired Immune Deficiency Syndromes

Selected Honors

- 1998 Julian Weiss Pharmacy Research Scholarship, University of California, San Francisco
- 1998 Rho Chi Pharmacy Honor Society Inductee
- 2000 NIH/UCSD Clinical Research Enhancement through Supplemental Training (CREST) Scholar
- 2002 NIH Loan Repayment Program Awardee
- 2003 Trainee Abstract Award, American College of Clinical Pharmacology
- 2004 Noteworthy Abstract, Universitywide AIDS Research Program
- 2006 National Center for Leadership in Academic Medicine Scholar & Co-Valedictorian
- 2006 "40 Under Forty" Honoree, San Diego Metropolitan Uptown Examiner & Daily Business Report
- 2007 Role Model in Underserved Medicine, UCSD Student-Run Free Clinic Project
- 2008 Top 10 Reviewer, Journal of Acquired Immune Deficiency Syndromes, Clinical Science section

C. Selected Peer-Reviewed Publications (Selected from 35 peer-reviewed publications)

1. **Best B**, Burns J, DeVincenzo J, Phelps S, Blumer J, Wilson J, Capparelli E, Connor J, Pediatric Pharmacology Research Unit Network. Pharmacokinetic and safety evaluation of a pediatric oral formulation of pentoxifylline in Kawasaki disease. *Curr Ther Res Clin Exp* 2003; 64: 96-115
2. **Best B**, Haubrich R. Tipranavir: A protease inhibitor for multi-drug resistant HIV-1. *Expert Opinion in Investigational Drugs*, 2006;15:59-70.
3. **Best B**, Mirochnick M, Capparelli EV, Stek A, Burchett SK, Holland DT, Read JS, Smith E, Hu C, Spector SA, Connor JD, PACTG P1026s Study Team. Impact of pregnancy on abacavir pharmacokinetics. *AIDS* 2006;20:553-60.
4. Stek A, Mirochnick M, Capparelli EV, **Best B**, Hu C, Burchett SK, Elgie C, Holland DT, Schiffhauer J, Sheeran B, Smith E, Tuomala R, Foca M, Cotter A, Read JS, PACTG P1026s Study Team. Reduced lopinavir exposure during pregnancy. *AIDS* 2006;20:1931-9.
5. **Best BM**, Goicoechea M, Witt MD, Miller L, Daar ES, Diamond C, Tilles JG, Kemper CA, Larsen R, Holland DT, Sun S, Wagner G, Capparelli EV, McCutchan JA, Haubrich RH and the California Collaborative Treatment Group 578 Study Team (CCTG 578). A randomized controlled trial of therapeutic drug monitoring in treatment-naïve and experienced HIV-1-infected patients. *J Acquir Immune Defic Syndr* 2007;46:433-42.
6. Letendre SL, Marquie-Beck J, Ellis RJ, Woods SP, **Best B**, Clifford DB, Collier AC, Gelman BB, Marra C, McArthur JC, McCutchan JA, Morgello S, Simpson D, Alexander TJ, Durelle J, Heaton R, Grant I; The CHARTER Group. The Role of Cohort Studies in Drug Development: Clinical Evidence of Antiviral Activity of Serotonin Reuptake Inhibitors and HMG-CoA Reductase Inhibitors in the Central Nervous System. *J Neuroimmune Pharmacol.* 2007 Mar;2(1):120-127.
7. Letendre S, Marquie-Beck J, Capparelli E, **Best B**, Clifford D, Collier AC, Gelman BB, McArthur JC, McCutchan JA, Morgello S, Simpson D, Grant I, Ellis RJ; The CHARTER Group. Validation of the CNS penetration-effectiveness rank for quantifying antiretroviral penetration into the central nervous system. *Arch Neurol* 2008;65(1):65-70.
8. Goicoechea M, Liu S, **Best B**, Sun S, Jain S, Kemper C, Witt M, Diamond C, Haubrich R, Louie S, CCTG 578 Team. Increased tenofovir-associated renal toxicity in protease inhibitor- versus non-nucleoside reverse transcriptase inhibitor-based therapy. *J Infect Dis* 2008;197(1):102-108.
9. Capparelli EV, Aweeka F, Hitti J, Stek A, Hu C, Burchett S, **Best B**, Smith E, Read JS, Watts H, Nachman S, Thorpe EM, Spector SA, Jimenez E, Shearer WT, Foca M, Mirochnick M, PACTG 1026s and 1022 Study Teams. Chronic administration of nevirapine during pregnancy: impact on pharmacokinetics. *HIV Medicine* 2008;9:214-220.
10. Tremoulet AH, **Best BM**, Song S, Wang S, Corinaldesi E, Eichenfeld J, Burns JC. Resistance to intravenous immunoglobulin in children with Kawasaki disease. *J Pediatr* 2008;153:117-21. PMID: PMC2526555

11. Burns JC, **Best BM**, Mejias A, Mahoney L, Fixler DE, Jafri HS, Melish ME, Jackson MA, Asmar BI, Lang DJ, Connor JD, Capparelli EV, Keen ML, Mamun K, Keenan GF, Ramilo O. Infliximab treatment of intravenous gamma globulin-resistant Kawasaki disease. *J Peds* 2008;153:833-838.
12. Read JS, **Best BM**, Stek AM, Hu C, Capparelli EV, Holland DT, Burchett SK, Smith, ME, Sheeran BC, Shearer WT, Febo I, Mirochnick M. Pharmacokinetics and safety of the new 625 mg nelfinavir tablet formulation during pregnancy and postpartum. *HIV Medicine* 2008;9:875-882.
13. Mirochnick M, **Best B**, Stek AM, Capparelli E, Hu C, Burchett SK, Holland DT, Smith E, Gaddipati S, Read J for the PACTG P1026s Study Team. Lopinavir exposure with an increased dose during pregnancy. *JAIDS* 2008;49(5):485-491.
14. **Best BM**, Letendre SL, Brigid E, Clifford DB, Collier AC, Gelman BB, McArthur JC, McCutchan JA, Simpson DM, Ellis R, Capparelli EV, and Grant I for the CHARTER Group. Low atazanavir concentrations in cerebrospinal fluid. *AIDS* 2009;23:83-87. PMID: PMC2642983
15. Rosenquist A, **Best BM**, Miller TA, Gilmer TP, Hirsch JD. Medication therapy management services in community pharmacy: a pilot program in HIV specialty pharmacies. *J Eval Clin Prac* 2009 (In Press)

D. Research Support

Ongoing Research Support

(PI: Best, Brookie; PI: Taylor, Palmer)

04/01/2010 – 03/31/2015

NIH/NICHD

Predoctoral Research Training in Maternal and Pediatric Pharmacology. The major goal is to provide an integrated educational and practical mentored research training experience for predoctoral students in the Health Sciences.

(PI: Best, Brookie)

06/01/2008 – 05/31/2011

NIH/NIAID/NICHD/Social & Scientific Systems

P1080: A Pilot Study of Psychiatric and Antiretroviral Medication Concentrations in HIV-Infected and Uninfected Children and Adolescents

(PI: Capparelli, Edmund V.)

07/01/2006 – 05/31/2013

NIH/NIAID/NICHD/Social & Scientific Systems

IMPAACT Leadership Grant – Pharmacology Specialty Laboratory. Provides laboratory-based scientific leadership and consultation to IMPAACT and collaborating organizations, including other funded networks. Role: Co-Investigator (Pharmacologist)

(PI: Capparelli, Edmund V.)

07/01/2006 – 05/31/2013

NIH/NIAID/NICHD/Social & Scientific Systems

IMPAACT Leadership Grant – Pharmacology Core Laboratory. Provides laboratory-based scientific leadership and protocol laboratory services to IMPAACT and collaborating organizations, including other funded networks. Role: Co-Investigator (Pharmacologist)

2 P30 MH62512-06 (PI: Grant, Igor)

04/15/2006-03/31/2011

NIH

HIV Neurobehavioral Research Center Pharmacology Core. A center that integrates and supports research into etiology, pathogenesis, phenomenology, treatment, and prevention of neuroAIDS. Role: Co-Investigator (Pharmacologist)

N01 MH22005 (PI: Grant, Igor)

09/1/2007-08/31/2010

NIH

CNS HIV Anti-Retroviral Therapy Effects Research (CHARTER) - Laboratory, Pharmacology and Immunology Core. To assess the long-term effects of potent anti-retroviral therapy of HIV-induced disease of the nervous system. Role: Co-Investigator (Pharmacologist)

5 R01 MH058076 (PI: Ellis, Ronald)

08/01/2008 – 07/31/2011

NIH
HIV Neurocognitive Disorders: A Randomized Clinical Trial of CNS-Targeted HAART. This grant supports a randomized multicenter clinical trial of a strategy for using antiretroviral medications to maximize neurocognitive recovery in impaired HIV+ subjects. Role: Co-Investigator (Pharmacologist)

Recently Completed Research Support (within past 3 years)

(PI: Daar, Eric; UCLA) 06/01/2006 – 05/31/2009

California HIV/AIDS Research Program and Abbott Laboratories
A Phase IV, randomized, open-label study of the tolerability of once daily lopinavir/ritonavir (LPV/r) liquid versus capsules. To compare tolerability of lopinavir/ritonavir formulations dosed once-daily. To determine pharmacokinetics (PK) of three formulations dosed once-daily in sub-study. Role: Co-Investigator (Principal Investigator of PK Sub-Study)

5 U10 HD31318 (PI: Capparelli, Edmund V.) 01/01/2004-12/31/2008

NIH/NICHD
Pediatric Pharmacology Research Unit (PPRU). The program was established in an effort to get new and old drugs into safe, intelligent pediatric use as soon as possible. Role: Co-Investigator (Pharmacologist)

(PI: Best, Brookie) 01/01/2007-12/31/2007

American Association of Colleges of Pharmacy
New Investigator Program Award
Comparison of Lopinavir/Ritonavir (Kaletra) Pharmacokinetics in Pediatric Patients Taking Crushed Versus Whole Tablets. To describe the pharmacokinetics of lopinavir in pediatric patients after taking the tablet formulation and compare within the same subject to the pharmacokinetics after crushing the tablet formulation and mixing with water.

(PI: Best, Brookie) 09/01/2005-09/30/2007

Abbott Laboratories, Inc.
Pharmacogenomics of Lopinavir in HIV Patients. The goal of this investigator-initiated project is to identify allelic variants that may impact exposure to lopinavir.

(PI: Connor, James D.) 02/01/2004-01/31/2008

Centocor, Inc.
Safety, Tolerance and Pharmacokinetics of Infliximab versus IVIG for patients with Refractory Kawasaki disease. Role: Co-Investigator (Pharmacologist)