Last Updated: 11/30/2023

Joseph E. Rower, Ph.D.

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**PERSONAL DATA**

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| Citizenship: United States |
| Languages: English |

**EDUCATION**

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| Years | Degree | Institution (Area of Study) |
| 2005 - 2008 | B.S. | California Lutheran University (Chemistry, Mathematics)  Thousand Oaks, CA |
| 2008 - 2013 | Ph.D. | University of Colorado Anschutz Medical Campus (Pharmaceutical Sciences)  Aurora, CO |
| 2013 - 2014 | Postdoctoral Fellow | University of Colorado Anschutz Medical Campus (Systems Biology)  Aurora, CO |
| 2014 - 2015 | Postdoctoral Fellow | University of Colorado Anschutz Medical Campus (Antiviral Pharmacology)  Aurora, CO |
| 2015 - 2016 | Postdoctoral Fellow | University of Utah (Pediatric Clinical Pharmacology)  Salt Lake City, UT  Board Certification: American Board of Clinical Pharmacology (2019) |

**PROFESSIONAL EXPERIENCE**

**Full-Time Positions**

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| --- | --- |
| 2013 - 2015 | Postdoctoral Fellow, University of Colorado-Anschutz Medical Campus, Aurora, CO |
| 2015 - 2016 | Postdoctoral Fellow, University of Utah, Salt Lake City, UT |
| 2016 - 2018 | Assistant Professor (Research Track), Pediatric Clinical Pharmacology, University of Utah, Salt Lake City, UT |
| 2018 - current | Assistant Professor (Research Track), Pharmacology and Toxicology, University of Utah, Salt Lake City, UT |
| 2018 – current | Adjunct Assistant Professor (Research Track), Pediatric Clinical Pharmacology, University of Utah, Salt Lake City, UT |
| 2020 - current | Associate Director, Center for Human Toxicology, University of Utah, Salt Lake City, UT |

**Reviewer Experience**

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| Reviewer for Antimicrobial Agents and Chemotherapy |
| Associate Editor and Reviewer for BMC Pharmacology and Toxicology |
| Reviewer for Clinical Pharmacokinetics |
| Reviewer for European Journal of Drug Metabolism and Pharmacokinetics |
| Reviewer for International Journal of Clinical Pharmacology and Therapeutics |
| Reviewer for Journal of Chromatography B |
| Reviewer for British Journal of Clinical Pharmacology |

Reviewer for Journal of Pharmaceutical and Biomedical Analysis

Reviewer for Therapeutic Drug Monitoring

**SCHOLASTIC HONORS**

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| 2005 - 2006 | Academic Scholarship, California Lutheran University, Thousand Oaks, CA |
| 2005 - 2008 | Dean’s List, California Lutheran University, Thousand Oaks, CA |
| 2006 - 2008 | Harold Sunde Memorial Scholarship, California Lutheran University, Thousand Oaks, CA |
| 2006 - 2008 | Fredrickson-Overton Scholarship, California Lutheran University, Thousand Oaks, CA |
| 2006 - 2008 | Alvin E. Walz Chemistry Scholarship, California Lutheran University, Thousand Oaks, CA |
| 2010 - 2011 | TL1 Pre-Doctoral Fellow, University of Colorado, Aurora, CO |
| 2011 | International Workshop on the Clinical Pharmacology of HIV Therapy Young Investigator Travel Award |
| 2011 | Conference on Retroviruses and Opportunistic Infections Young Investigator Travel Award |
| 2013 | International Workshop on the Clinical Pharmacology of HIV Therapy Young Investigator Travel Award |
| 2013 - 2014 | T15 Post-Doctoral Fellow, University of Colorado, Aurora, CO |
| 2015 | Conference on Retroviruses and Opportunistic Infections Young Investigator Travel Award |
| 2015 | International Workshop on the Clinical Pharmacology of HIV Therapy Young Investigator Travel Award |

**ADMINISTRATIVE EXPERIENCE**

**Professional Organization & Scientific Activities**

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| 2015 - 2018 | Abstract Reviewer, American Association of Pharmaceutical Scientists |
| 2016 - 2018 | Abstract Screener, American Association of Pharmaceutical Scientists |

**UNIVERSITY COMMUNITY ACTIVITIES**

**University Level**

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| --- | --- |
| 2015 | Facilitator, University of Utah, Life Cycle Unit |
| 2015 - 2017 | Facilitator, University of Utah, NIH Principles of Clinical Pharmacology Course |
| 2015 - 2017 | Facilitator, University of Utah, NIH Principles of Pediatric Clinical Pharmacology Course |
| 2019 – current | Member, University of Utah College of Pharmacy Pharm.D. Scholarship Committee |
| 2020 – current | Member, University of Utah College of Pharmacy Safety Committee |

**SERVICE AT PREVIOUS INSTITUTIONS**

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| --- | --- |
| 2008 | Teaching Assistant, University of Colorado Denver, Anschutz Medical Campus, Science Foundations I (PharmD) |
| 2009 | Teaching Assistant, University of Colorado Denver, Anschutz Medical Campus, Integrated Organ Systems (PharmD) |
| 2009 | Teaching Assistant, University of Colorado Denver, Anschutz Medical Campus, PHRD 3650: Principles of Drug Action (PharmD) |
| 2009 - 2010 | Organizer, University of Colorado Denver, Anschutz Medical Campus, Rowland and Tozer Clinical Pharmacokinetics and Pharmacodynamics Book Study |
| 2014 | Teaching Assistant, University of Colorado Denver, Anschutz Medical Campus, PHSC/TXCL 7665: Pharmacokinetic Principles and Applications (PhD) |

**MEMBERSHIPS IN PROFESSIONAL SOCIETIES**

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| 2011 | Member, American Society for Clinical Pharmacology and Therapeutics |
| 2013 - 2014 | Member, American Association for Cancer Research |
| 2014 - 2015 | Member, American Association for the Study of Liver Diseases |
| 2014 - 2018 | Member, American Society for Clinical Pharmacology and Therapeutics |
| 2016 - 2018 | Member, American College of Clinical Pharmacology |

**FUNDING**

**Pending/Submitted Grants**

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| --- | --- |
| 07/01/24-06/30/28 | *Pharmacokinetic and Pharmacodynamic (PK/PD) Studies of mTOR Inhibitors on Aging-Related Indications (U01 AG089241)*  Principal Investigator: Venkata Yellepeddi (contact), Joseph Rower  Direct Costs: $1,307,748 Total Costs: $2,013,923  NIH/NIA  Role: co-Principal Investigator |
| 07/01/24-06/30/29 | *Interplay of biological sex and cannabis use on the developing brain*  *(R01 DA060847)*  Principal Investigator: Joseph Rower  Direct Costs: $2,281,089 Total Costs: $3,512,877  NIH/NIDA  Role: Principal Investigator |
| 04/01/24-03/31/26 | *Extended release buprenorphine as a novel low-dose induction strategy*  *(R21 DA060411)* Principal Investigator: Joji Suzuki  Direct Costs: $275,000    Total Costs: $496,317  NIH/NIDA  Role: co-Investigator |

**Ongoing Funding**

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| 04/01/24-03/31/26 | *Oral buprenorphine as a novel low-dose induction strategy for individuals with opioid use disorder (R21 DA060411)* Principal Investigator: Joji Suzuki  Direct Costs: $275,000    Total Costs: $500,293  NIH/NIDA  Role: co-Investigator |
| 09/15/22-06/30/27 | *Heavy cannabis use, neurocognition and PrEP care engagement among young Black sexual minority men (R01 DA057351)* Principal Investigator: John Schneider (contact), Justin Knox  Direct Costs: $3,022,364    Total Costs: $4,986,904  NIH/NIDA  Role: co-Investigator |
| 04/01/22-03/31/24 | *Intravenous Magnesium: Prompt Use for Asthma in Children Treated in the Emergency Department (R34 HL152047)* Principal Investigator: Michael D. Johnson  Direct Costs: $450,000    Total Costs: $733,538  NIH/NHLBI  Role: co-Investigator |
| 03/23/22-03/22/27 | *Bioanalytical Core for the Epilepsy Therapeutic Screening Program (75N95022C00007)*  Principal Investigator: Karen Wilcox  Direct Costs: $245,135.73 Total Costs: $373,831.99  NIH/NINDS  Role: co-Investigator |
| 10/01/21-09/30/24 | *Repurposing Valganciclovir to Treat Cytomegalovirus-Induced Hearing Loss* Principal Investigator: Joseph E. Rower  Direct Costs: $40,000    Total Costs: $40,000  Cures Within Reach  Role: Principal Investigator |
| 03/01/21-03/14/24 | *Quantification of Drugs of Abuse and Related Compound in Biological Specimens (75N95019C00016)* Principal Investigator(s): Christopher A. Reilly Direct Costs: $384,708    Total Costs: $586,680  NIH/NIDA  Role: co-Investigator |
| 05/01/20-04/30/25 | *Precision Pharmacokinetic-Guided Tacrolimus Dosing to Improve Pediatric Heart Transplant Outcomes (K01* *HL148402)* Principal Investigator(s): Joseph E. Rower Direct Costs: $772,940    Total Costs: $834,776  NIH/NHLBI  Role: Principal Investigator |
| 03/01/19 – 02/28/22  (NCE to 12/31/23) | *Oxandrolone Pharmacokinetics Core Lab* Principal Investigator(s): Joseph E. Rower Direct Costs: $32,081    Total Costs: $41,064  New England Research Institutes Role: Principal Investigator |

**Completed Grants**

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| 07/01/19 – 06/30/21  (NCE to 12/31/2021) | *Recreational Drug use in Hepatitis C Virus Infection*  Principal Investigator: Joseph E. Rower, Jennifer J. Kiser  Direct Costs: $149,778    Total Costs: $149,778  ALSAM Foundation Skaggs Scholar Program  Role: co-Principal Investigator |

**TEACHING RESPONSIBILITIES/ASSIGNMENTS**

**Course Lectures**

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| --- | --- |
| Spring 2013 | Instructor, NIH Principles of Clinical Pharmacology Course (PhD/PharmD), University of Colorado Anschutz Medical Campus. Population Pharmacokinetics |
| Spring 2014 | Instructor, PHSC/TXCL 7665: Pharmacokinetic Principles and Applications (PhD), University of Colorado Anschutz Medical Campus. Physiologically Based Pharmacokinetic Modeling |
| Fall 2014 | Instructor, PHRD 6015: Pharmacokinetics (PharmD), University of Colorado Anschutz Medical Campus. Population Pharmacokinetics |
| Spring 2015 | Instructor, PHCL 7620: Principles of Pharmacology (PhD), University of Colorado Anschutz Medical Campus. Non-Compartmental Pharmacokinetics |
| Spring 2015 | Instructor, PHCL 7610: Principles of Pharmacology (PhD), University of Colorado Anschutz Medical Campus. Pharmacokinetic Applications |
| Fall 2017 | Instructor, PED 5400: Introduction to Clinical Pharmacology, University of Utah. Methods of Drug and Drug Metabolite Analysis |
| Fall 2017 | Instructor, BIOEN 5110: Regulatory Affairs, University of Utah. Preclinical Pharmacokinetics. |
| Fall 2017 | Instructor, PED 5400: Introduction to Clinical Pharmacology, University of Utah. Assessment of Drug Effects I and II |
| Fall 2019 (annual) | Instructor, PHTX 7113: Introduction to Pharmacology and Toxicology, University of Utah. Sources of Pharmacokinetic Variability |
| Fall 2019 (annual) | Instructor, PHTX 7113: Introduction to Pharmacology and Toxicology, University of Utah. Methods of Drug and Metabolite Analysis. |
| Spring 2020 (annual) | Instructor, PHTX 7114: Principles of Toxicology, University of Utah. ADME: Absorption, Distribution, Metabolism, Excretion |
| Spring 2020 (annual) | Instructor, PHTX 7114: Principles of Toxicology, University of Utah. Toxicokinetics |
| Fall 2022 (annual) | Instructor, PHARM 6500: Pharmaceutical Sciences Core Course, University of Utah. Pharmacodynamics |

**Small Group Teaching**

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| 2016 - 2018 | Faculty Co-Director, Pharmacometrics Trainee Meeting, Division of Pediatric Clinical Pharmacology. Bimonthly to weekly meeting of Division trainees (including graduate students and postdoctoral fellows). |

**Trainee Supervision**

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| Fellow | |
| 2013 - 2014 | Advisor/Mentor, Kyle Hammond, University of Colorado-Anschutz Medical Campus. Provided training in antiviral pharmacology and pharmacometrics *Trainee's Current Career Activities:* Medical Scientist, Gilead Sciences, Foster City, CA |
| 2015 - 2018 | Advisor/Mentor, Kathleen Job, University of Utah. Guided research projects focused on clinical trial administration *Trainee's Current Career Activities:* Instructor, Division of Clinical Pharmacology, Department of Pediatrics, University of Utah, UT |
| 2016 - 2018 | Advisor/Mentor, Shaun Kumar, University of Utah. Guided research projects focused on pharmacometrics *Trainee's Current Career Activities:* PK Scientist, Parexel, Queensland, Australia |
| 2016 - 2018 | Advisor/Mentor, Silvia Martinez-Illamola, University of Utah. Guided research projects focused on pharmacometrics *Trainee's Current Career Activities:* Research Associate, University of Minnesota-Twin Cities, Minneapolis-St.Paul, MN |
| 2016 - 2018 | Advisor/Mentor, Jahidur Rashid, University of Utah. Guided research projects focused on pharmacometrics *Trainee's Current Career Activities:* Pharmacometrics Manager, Pfizer, San Diego, CA |
| 2023 – current | Advisor/Mentor, Cheryl Mathis, University of Utah. Guided research projects focused on bioanalysis *Trainee's Current Career Activities:* Post – Doctoral Fellow, University of Utah |
| PhD/Doctorate | |
| 2009 - 2011 | Advisor/Mentor, Kyle Hammond, Aquilante Laboratory, University of Colorado Anschutz Medical Campus. Projects: *Pharmacokinetics and Pharmacogenetics of Gemfibrozil*. |
| 2013 - 2016 | Advisor/Mentor, Leah Jimmerson, Kiser Laboratory, University of Colorado Anschutz Medical Campus. Projects: *Pharmacology of ribavirin: effects on intracellular nucleotide pools and associations with clinical outcomes*. |
| 2013 - 2016 | Advisor/Mentor, Heller Chen, Anderson Laboratory, University of Colorado Anschutz Medical Campus. Projects: *Bioanalysis and Pharmacokinetic-Pharmacodynamic Modeling of Endogenous 2’deoxynucleoside Triphosphate Pool in Individuals Receiving Tenofovir/Emtricitabine*. |
| 2015 | Advisor/Mentor, Allison Chadsey, Kiser Laboratory, University of Colorado Anschutz Medical Campus. Projects: *Population Pharmacokinetics of Ritonavir in Pediatrics*. |
| 2015 - 2018 | Advisor/Mentor, Matt Linakis, Sherwin Laboratory, University of Utah. Projects: *Transdermal Drug Delivery in Special Populations: The “Cutting Edge”*. |
| 2016 - 2019 | Advisor/Mentor, Cameron Hill, ADD Laboratory, University of Utah. Projects: *A Novel Food-Based Administration of Carbamazepine for Epilepsy.* |
| 2021 - current | Supervisor, Keith Kuo, Park Laboratory, University of Utah, Projects: *Intracellular Pharmacology of Ganciclovir in a Mouse Model of CMV-induced Hearing Loss.* |
| 2021 - current | Committee Member/Mentor, Jeffrey Mensah, Wilcox Laboratory, University of Utah, Projects: *A pharmacokinetic study of therapeutically relevant combination therapy in a mouse model for Dravet Syndrome.* |
| 2021 - current | Committee Member/Mentor, Autumn McKnite, Watt Laboratory, University of Utah, Projects: *Drug-Drug and Drug-Circuit Interactions in Pediatric CRRT.* |
| 2021 – current | Advisor/Mentor, Christopher Neil, Kiser Laboratory, University of Colorado Anschutz Medical Campus. Projects: *Interactions Between Recreational Drugs, Adherence, and 007-TP Concentrations.* |
| Masters |  |
| 2016-2018 | Advisor/Mentor, Carolyn Clayton, Master’s Thesis, University of Colorado Anschutz Medical Campus. Projects: *The Selection and Implementation of Non-Linear Mixed Models in Pharmacokinetic Research: A NONMEM/PDX-POP Tutorial for Statisticians*. |
| 2022 – current | Advisor/Mentor, Kate Mattena, Master’s Thesis, University of Utah. Projects: Acetaminophen Induced Liver Injury in Cancer Patients. |
| Undergraduate | |
| 2015 - 2016 | Supervisor, Bradley Hillyard, Sherwin Laboratory, University of Utah. Projects: *Immunosuppressant Use Trends in Pediatric Transplant Patients*. |
| 2017 – 2018 | Supervisor, Ty Forbes, Sherwin Laboratory, University of Utah |
| 2018 | Supervisor, Sydney Warren, Reilly Laboratory, University of Utah. Projects: *Quantification of Budesonide in Dried Blood Spots Collected in Premature Neonates*. |
| 2021 | Supervisor, Eliza Walker, Rower Laboratory, University of Utah. Projects: *Assessment of Recreational Drug Concentrations in Hair* |

**Educational Lectures**

Didactic Lectures

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| 2015 | *Translational Medicine and Large Databases.* University of Utah Clinical Pharmacology Workshop, Salt Lake City, UT. |

Department/Division Conferences

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| 2015 | Optimizing anti-infective use in hematologic malignancy: Do cancer patients have altered vancomycin pharmacokinetics?, Division of Infectious Diseases, Department of Pediatrics, University of Utah |
| 2016 | Improving Pediatric Clinical Care with Dried Blood Spots, Research in Progress, Department of Pediatrics, University of Utah |
| 2017 | Advancing Clinical Care of Vancomycin with Dried Blood Spots, Division of Infectious Diseases Weekly Meeting, Department of Pediatrics, University of Utah |
| 2018 | Towards Individualized Dosing:Predicting Calcineurin Inhibitor Concentrations Post-Transplant, Research in Progress, Department of Pediatrics, University of Utah |
| 2022 | Personalized Medicine in Pediatrics: Towards Individualized Care in the Youngest Patients. Department of Pharmacology and Toxicology, University of Utah |
| 2022 | Personalized Medicine in Pediatrics: Towards Individualized Care in the Youngest Patients. Department of Clinical Pharmacy Practice, University of California-Irvine |

**PEER-REVIEWED JOURNAL ARTICLES**

|  |  |
| --- | --- |
| 1. | Hail N Jr, Chen P, **Rower J**, Bushman LR (2010). Teriflunomide encourages cytostatic and apoptotic effects in premalignant and malignant cutaneous keratinocytes. *Apoptosis*, *15*(10), 1234-46. |
| 2. | Kiser JJ, Bumpass JB, Meditz AL, Anderson PL, Bushman L, Ray M, Predhomme JA, **Rower J**, Mawhinney S, Brundage R (2010). Effect of antacids on the pharmacokinetics of raltegravir in human immunodeficiency virus-seronegative volunteers. *Antimicrob Agents Chemother*, *54*(12), 4999-5003. |
| 3. | **Rower JE**, Bushman LR, Hammond KP, Kadam RS, Aquilante CL (2010). Validation of an LC/MS method for the determination of gemfibrozil in human plasma and its application to a pharmacokinetic study. *Biomed Chromatogr*, *24*(12), 1300-8. |
| 4. | Bushman LR, Kiser JJ, **Rower JE**, Klein B, Zheng JH, Ray ML, Anderson PL (2011). Determination of nucleoside analog mono-, di-, and tri-phosphates in cellular matrix by solid phase extraction and ultra-sensitive LC-MS/MS detection. *J Pharm Biomed Anal*, *56*(2), 390-401. |
| 5. | **Rower JE**, Klein B, Bushman LR, Anderson PL (2012). Validation of a sensitive LC/MS/MS method for the determination of zidovudine and lamivudine in human plasma. *Biomed Chromatogr*, *26*(1), 12-20. |
| 6. | **Rower JE**, Meditz A, Gardner EM, Lichtenstein K, Predhomme J, Bushman LR, Klein B, Zheng JH, Mawhinney S, Anderson PL (2012). Effect of HIV-1 infection and sex on the cellular pharmacology of the antiretroviral drugs zidovudine and lamivudine. *Antimicrob Agents Chemother*, *56*(6), 3011-9. |
| 7. | Kile DA, MaWhinney S, Aquilante CL, **Rower JE**, Castillo-Mancilla JR, Anderson PL (2012). A population pharmacokinetic-pharmacogenetic analysis of atazanavir. *AIDS Res Hum Retroviruses*, *28*(10), 1227-34. |
| 8. | Aquilante CL, Kosmiski LA, Bourne DW, Bushman LR, Daily EB, Hammond KP, Hopley CW, Kadam RS, Kanack AT, Kompella UB, Le M, Predhomme JA, **Rower JE**, Sidhom MS (2013). Impact of the CYP2C8 \*3 polymorphism on the drug-drug interaction between gemfibrozil and pioglitazone. *Br J Clin Pharmacol*, *75*(1), 217-26. |
| 9. | Castillo-Mancilla JR, Zheng JH, **Rower JE**, Meditz A, Gardner EM, Predhomme J, Fernandez C, Langness J, Kiser JJ, Bushman LR, Anderson PL (2013). Tenofovir, emtricitabine, and tenofovir diphosphate in dried blood spots for determining recent and cumulative drug exposure. *AIDS Res Hum Retroviruses*, *29*(2), 384-90. |
| 10. | Jimmerson LC, Ray ML, Bushman LR, Anderson PL, Klein B, **Rower JE**, Zheng JH, Kiser JJ (2015). Measurement of intracellular ribavirin mono-, di- and triphosphate using solid phase extraction and LC-MS/MS quantification. *J Chromatogr B Analyt Technol Biomed Life Sci*, *978-979*, 163-72. |
| 11. | Kiser TH, Fish DN, Aquilante CL, **Rower JE**, Wempe MF, MacLaren R, Teitelbaum I (2015). Evaluation of sulfobutylether-beta-cyclodextrin (SBECD) accumulation and voriconazole pharmacokinetics in critically ill patients undergoing continuous renal replacement therapy. *Crit Care*, *19*, 32. |
| 12. | Wu LS, **Rower JE**, Burton JR Jr, Anderson PL, Hammond KP, Baouchi-Mokrane F, Everson GT, Urban TJ, D'Argenio DZ, Kiser JJ (2015). Population pharmacokinetic modeling of plasma and intracellular ribavirin concentrations in patients with chronic hepatitis C virus infection. *Antimicrob Agents Chemother*, *59*(4), 2179-88. |
| 13. | **Rower JE**, Meissner EG, Jimmerson LC, Osinusi A, Sims Z, Petersen T, Bushman LR, Wolfe P, McHutchison JG, Kottilil S, Kiser JJ (2015). Serum and cellular ribavirin pharmacokinetic and concentration-effect analysis in HCV patients receiving sofosbuvir plus ribavirin. *J Antimicrob Chemother*, *70*(8), 2322-9. |
| 14. | Morris AA, Mueller SW, **Rower JE**, Washburn T, Kiser TH (2015). Evaluation of Sulfobutylether-beta-Cyclodextrin Exposure in a Critically Ill Patient Receiving Intravenous Posaconazole While Undergoing Continuous Venovenous Hemofiltration. *Antimicrob Agents Chemother*, *59*(10), 6653-6. |
| 15. | **Rower JE**, Jimmerson LC, Chen X, Zheng JH, Hodara A, Bushman LR, Anderson PL, Kiser JJ (2015). Validation and Application of a Liquid Chromatography-Tandem Mass Spectrometry Method To Determine the Concentrations of Sofosbuvir Anabolites in Cells. *Antimicrob Agents Chemother*, *59*(12), 7671-9. |
| 16. | Lanke S, Yu T, **Rower JE**, Balch AH, Korgenski EK, Sherwin CM (2016). AUC-Guided Vancomycin Dosing in Adolescent Patients with Suspected Sepsis. *Journal of Clinical Pharmacology, The*, *57*(1), 77-84. |
| 17. | Seifert SM, Chen X, Meditz AL, Castillo-Mancilla JR, Gardner EM, Predhomme JA, Clayton C, Austin G, Palmer BE, Zheng JH, Klein B, Kerr BJ, Guida LA, Rower C, **Rower JE**, Kiser JJ, Bushman LR, MaWhinney S, Anderson PL (2016). Intracellular Tenofovir and Emtricitabine Anabolites in Genital, Rectal, and Blood Compartments from First Dose to Steady State. *AIDS Res Hum Retroviruses*, *32*(10-11), 981-991. |
| 18. | **Rower JE**, Stockmann C, Linakis MW, Kumar SS, Liu X, Korgenski EK, Sherwin CMT, Molina KM (2017). Predicting tacrolimus concentrations in children receiving a heart transplant using a population pharmacokinetic model. *BMJ Paediatr Open*, *1*, e000147. |
| 19. | **Rower JE**, Liu X, Yu T, Mundorff M, Sherwin CM, Johnson MD (2017). Clinical pharmacokinetics of magnesium sulfate in the treatment of children with severe acute asthma. *Eur J Clin Pharmacol*, *73*(3), 325-331. |
| 20. | Bevans T, Deering-Rice C, Stockmann C, **Rower JE**, Sakata D, Reilly C (2017). Inhaled Remimazolam Potentiates Inhaled Remifentanil in Rodents. *Anesthesia and Analgesia*, *124*(5), 1484-1490. |
| 21. | Linakis MW, **Rower JE**, Roberts JK, Miller EI, Wilkins DG, Sherwin CMT (2017). Population pharmacokinetic model of transdermal nicotine delivered from a matrix-type patch. *Br J Clin Pharmacol*, *83*(12), 2709-2717. |
| 22. | Becker S, Job KM, Lima K, Forbes T, Wagstaff J, Tran NK, Sherwin CM, Nelson D, Johnson MD, **Rower JE** (2019). Prospective Study of Serum and Ionized Magnesium Pharmacokinetics in the Treatment of Children with Severe Acute Asthma. *Eur J Clin Pharmacol, 75*(1):59-66. |
| 23. | **Rower JE**, Anderson DJ, Sherwin CM, Reilly CA, Ballard PL, McEvoy CT, Wilkins DG (2019). Development and Validation of an Assay for Quantifying Budesonide in Dried Blood Spots Collected from Extremely Low Gestational Age Neonates. *J Pharm Biomed Anal,* 167:7-14. |
| 24. | Reilly AM, King MX, **Rower JE**, Kiser TH (2019). The Effectiveness of a Vancomycin Dosing Guideline in the Neonatal Intensive Care Unit for Achieving Goal Therapeutic Trough Concentrations. *J Clin Pharmacol*, 59(7):997-1005. |
| 25. | Hill AC, **Rower JE**, White HS (2019). The Pharmacokinetics of Oral Carbamazepine in Rats Dose Using an Automated Drug Delivery System. *Epilepsia,* 60(9):1829-1837. |
| 26. | Linakis MW, **Rower JE**, Sorenson S, Reilly CA, Lambert LM, Williams RV, Burch PT (2020). Stability and pharmacokinetics of an extemporaneous formulation of oxandrolone to improve neonatal growth following surgical heart repair. *J Pediatr Pharmacol Ther;* 25(3):220-227. |
| 27. | **Rower JE**, Nielson C, Shi K, Park AH (2020). Validation of an Assay for Quantifying Ganciclovir in Dried Blood Spots. *J Pharm Biomed Anal.* Feb 17;184-113181. |
| 28. | McEvoy, CT, Ballard PL, Ward RM, **Rower JE**, Wadhawan R, Hudak ML, Weitkamp JH, Harris J, Asselin J, Chapin C, Ballard RA (2020). Dose Escalation Trial of Budesonide in Surfactant for Prevention of Bronchopulmonary Dysplasia in Extremely Low Gestational Age Newborns (SASSIE). *Pediatr Res*. 88(4):629-636. |
| 29. | Biltaji E, Enioutina EY, Yellepeddi V, **Rower JE**, Sherwin CMT, Ward RM, Lemons RS, Constance JE (2020). Supportive care medications coinciding with chemotherapy among children with hematologic malignancy. *Leuk Lymphoma*. Apr 7:1-12. |
| 30. | **Rower JE**, King AD, Wilkins D, Wilkes J, Yellepeddi V, Maese L, Lemons RS, Constance JE (2020). Dronabinol Prescribing and Exposure Among Children and Young Adults Diagnosed with Cancer. *J Adolesc Young Adult Oncol.* 10(2):175-184. |
| 31. | Nguyen ND, Memon TA, Burrell KL, Almestica-Roberts M, Rapp E, Sun L, Scott AF, **Rower JE**, Deering-Rice CE, Reilly CA (2020). Transient Receptor Potential Ankyrin-1 and Vanilloid-3 Differentially Regulate Endoplasmic Reticulum Stress and Cytotoxicity in Human Lung Epithelial Cells After Pneumotoxic Wood Smoke Particle Exposure. *Mol Pharmacol.* 98(5):586-597. |
| 32. | Imburgia CE, **Rower JE**, Green D, McKnite A, Kelley W, Reilly CA, Watt KM (2022). Remdesivir and GS-441524 Extraction by Extracorporeal Life Support Circuits. *ASAIO J* 68(9):1204-1210. |
| 33. | Freeling JL, Scholl JL, Eikanger M, Knoblich C, Potts RA, Anderson DJ, **Rower JE**, Farjoo MH, Zhao H, Pillatzki A, Rezvani K (2022). Pre-clinical safety and therapeutic efficacy of a plant-based alkaloid in a human colon cancer xenograft model. *Cell Death Discov.* 8(1):135. |
| 34. | Mensah JA, Johnson K, Reilly CA, Wilcox KS, **Rower JE**, Metcalf CS (2022). Evaluating the efficacy of prototype antiseizure drugs using a preclinical pharmacokinetic approach. *Epilepsia,* 63(11):2937-2948*.* |
| 35. | Manuzak JA, Granche J, Tassiopoulos K, **Rower JE**, Know JR, Williams DW, Ellis RJ, Goodkin K, Sharma A, Erlandson KM, ACTG A5322 Study Team (2023) Cannabis Use is Associated With Decreased Antiretroviral Therapy Adherence Among Older Adults With HIV. *Open Forum Infect Dis.* 10(1):ofac699. |
| 36. | Yellepeddi VK, Battaglia M, Davies SJC, Alt J, Ashby S, Shipman P, Anderson DJ, **Rower JE**, Reilly C, Voight M, Mim SR (2023). Pharmacokinetics of intranasal amiloride in healthy volunteers. *Clin Transl Sci* 16(6):1075-1084. |
| 37. | **Rower JE**, McKnite A, Hong B, Daly K, Hope K, Cabrera A, Molina KM (2023). External Assessment and Refinement of a Population Pharmacokinetic Model to Guide Tacrolimus Dosing in Pediatric Heart Transplant. *Pharmacotherapy* 43(7):650-658. |
| 38. | Hillam K, Suarez D, Nielson C, Traxler A, Sommer E, Winslow A, Holley A, Huang E, Hughes M, Firpo MA, **Rower JE**, Park AH (2023). Hearing Following Prolonged and Delayed Ganciclovir Treatment in a Murine Cytomegalovirus Model. *Laryngoscope,* epub ahead of print. |
| 39. | Johnson MD, Barney BJ, **Rower JE**, Finkelstein Y, Zorc JJ (2023). Intravenous Magnesium: Prompt Use for Asthma in Children Treated in the Emergency Department (IMPACT-ED): Protocol for a Multicenter Pilot Randomized Controlled Trial. *JMIR Res Protoc*. 12:e48302 |
| 40. | Fabian NJ, Mannion AJ, Jamiel M, Anderson DJ, **Rower JE**, Reilly CA, Menegas W, Muthupalani S, Ta C, Fox JG, Kramer R, Haupt JL (2023). Evaluation and comparison of pharmacokinetic profiles and safety of two extended-release buprenorphine formulations in common marmosets. *Sci Reports* Jul 22; 13(1):11864. |

**REVIEW ARTICLES**

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| 1. | Anderson PL, **Rower JE** (2010). Zidovudine and Lamivudine for HIV Infection. [Review]. *Clinical Medicine Reviews in Therapeutics*, *2*, a2004. |
| 2. | Anderson PL, Kiser JJ, Gardner EM, **Rower JE**, Meditz A, Grant RM (2011). Pharmacological considerations for tenofovir and emtricitabine to prevent HIV infection. [Review]. *Journal of Antimicrobial Chemotherapy (electronic)*, *66*(2), 240-50. |
| 3. | Enioutina EY, Constance JE, Stockmann C, Linakis MW, Yu T, **Rower JE**, Balch AH, Sherwin CM (2015). Pharmacokinetic considerations in the use of antivirals in neonates. [Review]. *Expert Opinion on Drug Metabolism and Toxicology*, *11*(12), 1861-78. |
| 4. | Job KM, Stockmann C, Constance JE, Enioutina EY, **Rower JE**, Linakis MW, Balch AH, Yu T, Liu X, Sherwin CMT (2016). Pharmacodynamic Studies of Voriconazole: Informing the Clinical Management of Invasive Fungal Infections. [Review]. *Expert Review of Anti-infective Therapy*, *14*(8):731-46. |
| 5. | Liu X, Yu T, **Rower JE**, Campbell SC, Sherwin CM, Johnson MD (2016). Optimizing the use of intravenous magnesium sulfate for acute asthma treatment in children. [Review]. *Pediatric Pulmonology*, *51*(12), 1414-1421. |
| 6. | Yellepeddi V, **Rower JE**, Liu X, Kumar S, Rashid J, Sherwin CMT (2019). State-of-the-Art Review on Physiologically Based Pharmacokinetic Modeling in Pediatric Drug Development. [Review]. *Clinical Pharmacokinet, 58*(1):1-13. |

**BOOK CHAPTERS**

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| 1. | Krekels EHJ, **Rower JE**, Constance JE, Knibbe C, Sherwin CMT (2017). Hepatic Drug Metabolism in Pediatric Patients. In Wen Xie (Ed.), *Drug Metabolism and Disposition in Diseases*. Elsevier Inc. |

**Other (Commentary/Letters/Editorials/Case Reports/Video/Film)**

**Other**

|  |  |
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| 1. | Langley T, Levitt D, **Rower JE** (2011). Two generalizations of the 5/8 bound on commutativity in nonabelian finite groups. *Mathematics Magazine* (*84*(2), pp. 123-36). |

**POSTER PRESENTATIONS**

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| 1. | Kile DA, **Rower JE**, et al (2010). *A NONMEM population approach to modeling the pharmacogenetics of atazanavir in HIV-negative adults.* Poster session presented at Joint Statistical Meetings, Vancouver, BC, Canada. |
| 2. | **Rower JE**, et al (2010). *Effect of UGT2B7 Polymorphisms on Gemfibrozil Pharmacokinetics in Healthy Volunteers.* Poster session presented at American Society for Clinical Pharmacology and Therapeutics Annual Meeting, Atlanta, GA. |
| 3. | **Rower JE**, et al (2011). *Concentration-effect analysis of IC phosphorylated ZDV and 3TC with changes in mtDNA.* Poster session presented at Conference on Retroviruses and Opportunistic Infections, Boston, MA. |
| 4. | Anderson PL, **Rower JE**, et al (2011). *Single-dose pharmacokinetic profile of intracellular TFV-DP and FTC-TP in HIV- volunteers.* Poster session presented at Conference on Retroviruses and Opportunistic Infections, Boston, MA. |
| 5. | **Rower JE**, et al (2011). *Intracellular mono-, di-, and tri-phosphate levels of tenofovir/emtricitabine in human peripheral blood mononuclear vs red blood cells.* Poster session presented at 12th International Workshop on Clinical Pharmacology of HIV Therapy, Miami, FL. |
| 6. | Kile DA, **Rower JE**, et al (2011). *A population pharmacokinetic (PK) analysis of candidate genes associated with atazanavir disposition.* Poster session presented at 12th International Workshop on Clinical Pharmacology of HIV Therapy, Miami, FL. |
| 7. | **Rower JE**, et al (2012). *Associations among Genetic Variants in the Cellular Pharmacology Pathway for Zidovudine and Lamivudine with Intracellular Phosphate Levels in vivo.* Poster session presented at Conference on Retroviruses and Opportunistic Infections, Seattle, WA. |
| 8. | Castillo-Mancilla J, **Rower JE**, et al (2012). *Pharmacology of Tenofovir, Tenofovir-DP, and Emtricitabine in RBC and DBS.* Poster session presented at Conference on Retroviruses and Opportunistic Infections, Seattle, WA. |
| 9. | Castillo-Mancilla J, **Rower JE**, et al (2013). *Tenofovir Diphosphate in Dried Blood Spots in HIV- vs HIV+ Individuals.* Poster session presented at Conference on Retroviruses and Opportunistic Infections, Atlanta, GA. |
| 10. | McAllister K, **Rower JE**, et al (2013). *Reliability and Precision of Tenofovir-Diphosphate (TFV-DP) in Dried Blood Spots (DBS): A Biomarker for Tenofovir Adherence.* Poster session presented at 14th International Workshop on Clinical Pharmacology of HIV Therapy, Amsterdam, Netherlands. |
| 11. | **Rower JE**, et al (2013). *Comparisons between plasma and intracellular tenofovir/emtricitabine (TFV/FTC) with sex and race in HIV-negative volunteers.* Poster session presented at 14th International Workshop on Clinical Pharmacology of HIV Therapy, Amsterdam, Netherlands. |
| 12. | **Rower JE**, et al (2014). *Development of a Physiologically-Based Pharmacokinetic Model of Canagliflozin in Humans.* Poster session presented at American Society for Clinical Pharmacology and Therapeutics Annual Meeting, Atlanta, GA. |
| 13. | **Rower JE**, et al (2014). *Plasma and Intracellular Pharmacokinetics and Concentration Effect Analyses in Chronic Hepatitis C Virus Genotype 1 Patients Receiving Sofosbuvir plus Ribavirin in the NIAID SPARE Trial.* Poster session presented at American Association of the Study of Liver Disease: The Liver Meeting, Boston, MA. |
| 14. | **Rower JE**, et al (2015). *Intravenous Anti-Infective Use in Pediatric Patients with Cancer.* Poster session presented at Huntsman Cancer Institute: Translating Cancer Epidemiology, Salt Lake City, UT. |
| 15. | Linakis MW, Cook SF, **Rower JE**, et al (2016). *Pharmacokinetics and Renal Clearance of β-Hydroxy-β-Methylbutyrate in Healthy Adults.* Poster session presented at American Society for Clinical Pharmacology and Therapeutics Annual Meeting, San Diego, CA. |
| 16. | Yu T, **Rower JE**, et al (2016). *Development of a physiologically based pharmacokinetic model of tacrolimus in adult organ transplant patients.* Poster session presented at American Society for Clinical Pharmacology and Therapeutics Annual Meeting, San Diego, CA. |
| 17. | **Rower JE**, et al (2016). *Population Pharmacokinetic Modeling of Magnesium Sulfate for Treatment of Severe Acute Asthma in Children in an Emergency Room Setting.* Poster session presented at American Society for Clinical Pharmacology and Therapeutics Annual Meeting, San Diego, CA. |
| 18. | Molina KM, **Rower JE**, et al (2016). *Predicting Tacrolimus Concentrations in Heart Transplant Recipients Using Population Pharmacokinetic Models.* Poster session presented at American Heart Association Annual Meeting, New Orleans, LA.. |
| 19. | Job KM, Hillyard B, Sanders C, **Rower JE**, et al (2017). *Calcineurin Inhibitor Use in Pediatric Immunosuppression.* Poster session presented at American Society for Clinical Pharmacology and Therapeutics Annual Meeting, Washington, DC. |
| 20. | **Rower JE**, et al (2017). *Predicting Future Calcineurin Inhibitor Concentrations with Population Pharmacokinetic Models in Pediatric Transplant Recipients to Reduce Drug Monitoring Burden.* Poster session presented at American College of Clinical Pharmacology Annual Meeting, San Diego, CA. |
| 21. | Bevans-Warren TS, Deering-Rice CE, **Rower JE**, et al (2018). *Inhaled Remifentanil in a Porcine Model*. Poster session presented at Respiratory Drug Delivery, Tucson, AZ. |
| 22. | Becker S, Job KM, **Rower JE**, et al (2018).*Pharmacokinetics of intravenous magnesium sulfate in status asthmaticus: A prospective cross-sectional analysis in a tertiary pediatric emergency department*. Poster session presented at Pediatric Academic Societies Annual Meeting, Toronto, Ontario, Canada. |
| 23. | **Rower JE**, et al (2019). *Pharmacodynamics of intravenous magnesium sulfate in children treated for acute asthma*. Poster session presented at Pediatric Academic Societies Annual Meeting, Baltimore, MD. |
| 24. | Green DJ, Imburgia CE, **Rower JE**, McKnite A, Kelley WE, Reilly CA, Watt KM (2022). *Remdesivir and GS-441524 Extraction by Extracorporeal Life Support Circuits*. Poster session presented at Society of Critical Care Medicine. San Juan, Puerto Rico. |
| 25. | Mensah JA, Johnson K, Wilcox KS, **Rower JE**, Metcalf CS (2021). *Evaluating the Efficacy of Some Prototype Antiseizure Drugs Using a Preclinical Pharmacokinetic Approach*. Poster session presented at American Epilepsy Society. Chicago, IL. |
| 26. | **Rower JE**, Hong B, Greever M, Daly KP, Hope KD, Cabrera AG, Molina KM (2022). *External Evaluation of a Single Center Personalized Tacrolimus Dosing Model for Pediatric Heart Transplant*. Poster session presented at International Society for Heart and Lung Transplantation. Boston, MA. |
| 27. | Choi YJ, Morrow M, Anderson DJ, Reilly CA, Brooks KM, Kiser JJ, **Rower JE** (2023). *Agreement between self-reported recreational drug use and detection in plasma, urine, and hair in persons with active drug use undergoing Hepatitis C treatment*. Poster session presented at Society of Toxicology. Nashville, TN. |

**ORAL PRESENTATIONS**

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| International |
| 2010 | Kiser JJ, **Rower JE**, et al. Ribavirin mono-, di-, and triphosphate concentrations in the peripheral blood mononuclear and red blood cells of Hepatitis C virus infected persons. 5th International Workshop on Clinical Pharmacology of Hepatitis Therapy, Boston, MA |
| 2011 | Anderson PL, **Rower JE**, et al. The cellular pharmacology of zidovudine and lamivudine according to HIV-status and gender. 12th International Workshop on Clinical Pharmacology of HIV Therapy, Miami, FL |
| 2013 | **Rower JE**, et al. A comprehensive model linking plasma and intracellular phosphate pharmacology for ZDV and 3TC. 14th International Workshop on Clinical Pharmacology of HIV Therapy, Amsterdam, Netherlands |
| 2015 | **Rower JE**, et al. Intracellular Pharmacokinetics of Sofosbuvir in vivo. Conference on Retroviruses and Opportunistic Infections, Seattle, WA |
| 2015 | **Rower JE**, et al. Pharmacokinetics of GS-331007 Triphosphate in Red Blood Cells in HCV-infected Subjects Receiving Sofosbuvir plus Ribavirin in the SPARE trial. 16th International Workshop on Clinical Pharmacology of HIV and Hepatitis Therapy, Washington, DC |
| 2019 | Ballard P, McEvoy C, **Rower JE**, et al (2019). *Pharmacokinetics and Anti-inflammatory Properties of Budesonide in Surfactant Administered to Intubated Premature Infants*. Oral Presentation at Pediatric Academic Societies Annual Meeting, Baltimore, MD. |
| National |  |
| 2012 | **Rower JE**, et al. Effect of HIV-1 infection, sex, and race on the cellular pharmacology of ZDV/3TC. National Clinical and Translational Sciences Predoctoral Programs Meeting, Rochester, MN |
| Local/Regional |  |
| 2008 | **Rower JE**, et al. When does a product of group elements equal its reverse? Pacific Coast Undergraduate Math Conference, San Diego, CA |

**CLINICAL PRACTICE EXPERIENCE**

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| 2010 - 2011 | Shadowed Dr. Jose Castillo-Mancilla in his care of HIV infected individuals, University of Colorado-Anschutz Medical Campus, Aurora, CO |

**OTHER SCHOLARLY ACTIVITY**

**Other Scholarly Activities**

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| 2017 | *The Bial 10-2474 Phase I Study – Applying Lessons to Future Drug Studies in Humans.* ACCP Journal Club Webinar, Given from Salt Lake City, UT. |

**RESEARCH EXPERIENCE**

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| 2008 - 2013 | Graduate Research Assistant, University of Colorado, Aurora, CO Skills learned include: Antiviral Pharmacology, Pharmacokinetic Modeling, Pharmacogenetic Analyses, Bioanalytical Techniques, Clinical Study Implementation, Cellular Pharmacology |
| 2013 - 2014 | Postdoctoral Fellow, University of Colorado-Anschutz Medical Campus, Aurora, CO Skills learned include: Cancer Biology, Systems Pharmacology, Bioinformatics, Physiologically Based Pharmacokinetic Modeling. Cell Culturing, Cell-Based Assays |
| 2014 - 2015 | Postdoctoral Fellow, University of Colorado-Anschutz Medical Campus, Aurora, CO Skills learned include: Hepatitis C Virus Direct Acting Antagonist Pharmacology, Bioanalytical Techniques for Tissue Specimens |
| 2015 - 2016 | Postdoctoral Fellow, University of Utah, Salt Lake City, UT Skills learned include: Advanced Pharmacometrics, Clinical Study Design |
| 2016 - Present | Assistant Professor (Research Track), University of Utah, Salt Lake City, UT Skills learned include: Advanced Pharmacometrics, Advanced Clinical Study Design and Implementation, Bioanalysis |

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