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Professional Appointments, Affiliations and Experience

Associate Professor, Department of Pharmaceutics, Rutgers, The State University of New Jersey, Piscataway, NJ	2019-present
Director, Center of Excellence for Pharmaceutical Translational Research and Education (CEPTRE), Rutgers, Piscataway, NJ	2019-present
Honorary Associate Professor in Pharmacy, University of Nottingham, UK	2021-present
Honorary Assistant Professor in Pharmacy, University of Nottingham, UK	2018-2021
Member, Brain Health Institute (BHI), Rutgers	2018-present
Member, New Jersey Institute for Food, Nutrition, and Health, Rutgers	2015-present
Member, Cancer Pharmacology Program, Cancer Institute of New Jersey (CINJ), Rutgers	2013-present
Assistant Professor, Department of Pharmaceutics, Rutgers, The State University of New Jersey, Piscataway, NJ	2012-2019
Member, Graduate Program in Pharmaceutical Science, Rutgers, The State University of New Jersey, Piscataway, NJ	2012-present
Research Assistant Professor, Department of Pharmaceutical Sciences, University at Buffalo, SUNY, Buffalo, NY	2010-2012
Post-doctoral fellow, Department of Pharmaceutical Sciences, University at Buffalo, SUNY, Buffalo, NY	2008-2010

Education

Post-doctoral fellow , Pharmacokinetics/Pharmacodynamics/Pharmaceutical Sciences, School of Pharmacy and Pharmaceutical Sciences, University at Buffalo, SUNY, Buffalo, NY	2008-2010
Ph.D. , Department of Pharmaceutics, School of Pharmacy, The Hebrew University of Jerusalem, Israel	2004-2009
M.Sc. Clinical Pharmacy , School of Pharmacy, The Hebrew University of Jerusalem, Israel	2001-2004
B.Pharm. Professional Pharmacy degree , School of Pharmacy, The Hebrew University of Jerusalem, Israel	1996-2000

Publications**Published Articles in Peer-Reviewed Journals**

1. **Kagan L**, Lapidot N, Afargan M, Kirmayer D, Moor E, Mardor Y, Friedman M, Hoffman A. Gastroretentive Accordion Pill: Enhancement of riboflavin bioavailability in humans. *Journal of Controlled Release* 2006; 113:208-15. PMID: 16806558.

2. **Kagan L**, Gershkovich P, Mendelman A, Amsili S, Ezov N, Hoffman A. The role of the lymphatic system in subcutaneous absorption of macromolecules in the rat model. *European Journal of Pharmaceutics and Biopharmaceutics* 2007; 67:759-65. PMID: 17499981.
3. **Kagan L**, Hoffman A. Selection of drug candidates for gastroretentive dosage forms: pharmacokinetics following continuous intragastric mode of administration in a rat model. *European Journal of Pharmaceutics and Biopharmaceutics* 2008; 69:238-46. PMID: 18068342.
4. **Kagan L**, Hoffman A. Systems for region selective drug delivery in the gastrointestinal tract: biopharmaceutical considerations. *Expert Opinion on Drug Delivery* 2008; 5(6):681-92. PMID: 18532923.
5. **Kagan L**, Lavy E, Hoffman A. Effect of mode of administration on guaifenesin pharmacokinetics and expectorant action in the rat model. *Pulmonary Pharmacology and Therapeutics* 2009; 22:260-5. PMID: 19166957.
6. **Kagan L**, Hoffman A. Biopharmaceutical aspects of gastro-retentive dosage forms: the gabapentin paradigm. *Journal of Drug Delivery Science and Technology* 2009; 19:233-9.
7. Ramot Y, Ben-Eliahu S, **Kagan L**, Ezov N, Nyska A. Subcutaneous and intraperitoneal lipogranulomas following subcutaneous injection of olive oil in Sprague-Dawley rats. *Toxicologic Pathology* 2009; 37:882-6. PMID: 19770348.
8. Czerninski R, Sivan S, Steinberg D, Gati I, **Kagan L**, Friedman M. A novel sustained-release clotrimazole varnish for local treatment of oral candidiasis. *Clinical Oral Investigations* 2010; 14(1):71-8. PMID: 19404692.
9. Davidson EM, Barenholz Y, Cohen R, Haroutiunian S, **Kagan L**, Ginosar Y. High-dose bupivacaine remotely loaded into multivesicular liposomes demonstrates slow drug release without systemic toxic plasma concentrations after subcutaneous administration in humans. *Anesthesia & Analgesia* 2010; 110(4):1018-23. PMID: 20357145.
10. **Kagan L**, Abraham AK, Harrold JM, Mager DE. Interspecies scaling of receptor-mediated pharmacokinetics and pharmacodynamics of type I interferons. *Pharmaceutical Research* 2010; 27:920-32. PMID: 20232116; PMCID: PMC3176922.
11. Abraham AK, **Kagan L**, Kumar S, Mager DE. Type I interferon receptor is a primary regulator of target-mediated drug disposition of interferon-beta in mice. *Journal of Pharmacology and Experimental Therapeutics* 2010; 334(1):327-32. PMID: 20406858; PMCID: PMC2912044.
12. **Kagan L**, Dreifinger T, Mager DE, Hoffman A. Role of p-glycoprotein in region-specific gastrointestinal absorption of talinolol in rats. *Drug Metabolism and Disposition* 2010; 38(9):1560-6. PMID: 20538723.
13. Horwitz E, **Kagan L**, Avni-Magen N, Daryi D, Gati I, Hoffman A, Friedman M, Lavy E. A novel subcutaneous controlled-release amoxicillin degradable implant for extended-interval administration in veterinary medicine. *Journal of Veterinary Pharmacology and Therapeutics* 2011; 34(5):494-8. PMID: 21198679.
14. Horwitz E, **Kagan L**, Chamisha Y, Gati I, Hoffman A, Friedman M, Lavy E. Novel gastroretentive controlled-release drug delivery system for amoxicillin therapy in veterinary medicine. *Journal of Veterinary Pharmacology and Therapeutics* 2011; 34(5):487-93. PMID: 21198678.
15. **Kagan L**, Gershkovich P, Wasan KM, Mager DE. Physiologically based pharmacokinetic model of amphotericin B disposition in rats following administration of deoxycholate formulation (Fungizone(R)): pooled analysis of published data. *The AAPS Journal* 2011; 13(2):255-64. PMID: 21431453; PMCID: PMC3085707.
16. **Kagan L**, Turner MR, Balu-Iyer SV, Mager DE. Subcutaneous absorption of monoclonal antibodies: role of dose, site of injection, and injection volume on rituximab pharmacokinetics in rats. *Pharmaceutical Research* 2012; 29(2):490-9. PMID: 21887597.
17. **Kagan L**, Mager DE. Mechanisms of subcutaneous absorption of rituximab in rats. *Drug Metabolism and Disposition* 2013; 41(1):248-55. PMID: 23129212.
18. Chen T, **Kagan L**, Mager DE. Population pharmacodynamic modeling of exenatide after 2-week treatment in STZ/NA diabetic rats. *Journal of Pharmaceutical Sciences* 2013; 102(10):3844-51. PMID: 23897494; PMCID: PMC3808969.
19. Chen T, Mager DE, **Kagan L**. Interspecies modeling and prediction of human exenatide pharmacokinetics. *Pharmaceutical Research* 2013; 30(3):751-60. PMID: 23229855; PMCID: PMC3732180.

20. Haroutiunian S, **Kagan L**, Yifrach-Damari I, Davidson E, Ratz Y, Hoffman A. Enhanced antinociceptive efficacy of epidural compared with i.v. methadone in a rat model of thermal nociception. *British Journal of Anaesthesia* 2014; 112(1):150-8. PMID: 23842610.
21. **Kagan L**, Gershkovich P, Wasan KM, Mager DE. Dual physiologically based pharmacokinetic model of liposomal and nonliposomal amphotericin B disposition. *Pharmaceutical Research* 2014; 31(1):35-45. PMID: 23793994.
22. **Kagan L**, Zhao J, Mager DE. Interspecies pharmacokinetic modeling of subcutaneous absorption of rituximab in mice and rats. *Pharmaceutical Research* 2014; 31(12):3265-73. PMID: 24852895.
23. **Kagan L**. Pharmacokinetic modeling of the subcutaneous absorption of therapeutic proteins. *Drug Metabolism and Disposition* 2014; 42(11):1890-905. PMID: 25122564.
24. Passey C, Kimko HC, Nandy P, **Kagan L**. Osteoarthritis disease progression model using six years follow-up data from the Osteoarthritis Initiative. *Journal of Clinical Pharmacology* 2015; 55(3):269-278. PMID: 25212288.
25. Wu TY, Huang Y, Zhang C, Su ZY, Boyanapalli S, Khor TO, Wang H, Lin H, Gounder M, **Kagan L**, Androulakis IP, Kong ANT. Pharmacokinetics and Pharmacodynamics of 3,3'-Diindolylmethane (DIM) in Regulating Gene Expression of Phase II Drug Metabolizing Enzymes, *Journal of Pharmacokinetics and Pharmacodynamics* 2015; 42:401-8. PMID: 26138223.
26. Brunetti L, **Kagan L**, Forrester G, Aleksunes LA, Lin H, Buyske, Nahass RG. Cefoxitin plasma and subcutaneous adipose tissue concentration in patients undergoing sleeve gastrectomy. *Clinical Therapeutics* 2016; 38(1): 204-10. PMID: 26686826.
27. Davidson EM, Haroutiunian S, **Kagan L**, Naveh M, Aharon A, Ginosar Y. A Novel Proliposomal Ropivacaine Oil: Pharmacokinetic-Pharmacodynamic Studies After Subcutaneous Administration in Pigs. *Anesthesia & Analgesia* 2016; 122:1663-72. PMID: 27057797.
28. Ginosar Y, Haroutiunian S, **Kagan L**, Naveh M, Aharon A, Davidson EM. Proliposomal Ropivacaine Oil: Pharmacokinetic and Pharmacodynamic Data After Subcutaneous Administration in Volunteers. *Anesthesia & Analgesia* 2016; 122:1673-80. PMID: 27057798.
29. Brunetti L, Sanchez-Catanese B, **Kagan L**, Wen X, Liu M, Buckley B, Luyendyk JP, Aleksunes LA. Evaluation of the chromogenic anti-factor IIa assay to assess dabigatran exposure in geriatric patients with atrial fibrillation in an outpatient setting. *Thrombosis Journal* 2016; 14(10):1-8. PMID: 27158246
30. Lee JB, Zgair A, Taha DA, Benito-Gallo P, Zang X, **Kagan L**, Kim TH, Kim MG, Yun H, Fischer PM, Gershkovich P. Quantitative analysis of lab-to-lab variability in Caco-2 permeability assays. *European Journal of Pharmaceutics and Biopharmaceutics* 2017; 114:38-42. PMID: 28088633
31. Brunetti L and **Kagan L**. Harnessing the action of fibroblast growth factor 21 as a therapeutic agent. *Current Pharmacology Reports* 2017; 3(1):26-35.
32. Chapy H, **Kagan L**. Evaluation of the effects of animal growth and previous exposure on the pharmacokinetics of rituximab in rats. *Journal of Pharmaceutical Sciences* 2018; 107(7):1987-1994. PMID: 29551353.
33. Zang X, **Kagan L**. Physiologically-based modeling and interspecies prediction of paclitaxel pharmacokinetics. *Journal of Pharmacokinetics and Pharmacodynamics* 2018; 45(4):577-592. PMID: 29671170.
34. Lee JB, Zgair A, Malec J, Kim TH, Kim MG, Ali J, Qin C, Feng W, Chiang M, Gao X, Voronin G, Garces AE, Lau CL, Chan TH, Hume A, McIntosh TM, Soukarieh F, Al-Hayali M, Elena Cipolla E, Collins HM, Heery DM, Shin BS, Yoo SD, **Kagan L**, Stocks MJ, Bradshaw TD, Fischer PM, Gershkovich P. Lipophilic activated ester prodrug approach for drug delivery to the intestinal lymphatic system. *Journal of Controlled Release* 2018; 286:10-19. PMID: 30016732.
35. Brunetti L, Wassef A, Sadek R, Desphande K, Ziegler J, Na A, Riley P, **Kagan L**. Anticoagulant activity of enoxaparin and unfractionated heparin for venous thromboembolism prophylaxis in obese patients undergoing sleeve gastrectomy. *Surgery for Obesity and Related Diseases* 2019; 15(3):363-373. PMID: 30713119.
36. Narayanan N, Adams CD, Kubiak DW, **Kagan L**, Brunetti L. Evaluation of Treatment Options for Methicillin resistant *Staphylococcus aureus* infections in the obese patient. *Infection and Drug Resistance* 2019; 12:877-891. PMID: 31114267.
37. Hincker A, Frey K, Rao L, Wagner-Johnston N, Ben Abdallah A, Tan B, Amin M, Wildes T, Shah R, Karlsson P, Bakos K, Kosicka K, **Kagan L**, and Haroutiunian S. Somatosensory predictors of response

- to pregabalin in painful chemotherapy-induced peripheral neuropathy (CIPN): A randomized, placebo-controlled, crossover study. *Pain* 2019; 160(8):1835-1846. PMID: 31335651.
38. Hossan S, Chan ZY, Collins HM, Shipton FN, Butler MS, Rahmatullah M, Lee JB, Gershkovich P, **Kagan L**, Khoo TJ, Wiart C, Bradshaw TD. Cardiac glycoside Cerberin exerts anticancer activity by PI3K/AKT/mTOR signal transduction inhibition. *Cancer Letters* 2019; 453:57-73. PMID: 30930233.
 39. Zang X, Lee JB, Deshpande K, Garbuzenko O, Minko T, **Kagan L**. Liposomal formulation of paclitaxel prevents chemotherapy-induced neuropathy in rats. *Journal of Controlled Release* 2019; 303:109-116. PMID: 30981814.
 40. Mezocho A, Thakur K, Zentner I, Subbian S, **Kagan L**, Vinnard C. Attainment of Target Rifampin Concentrations in Cerebrospinal Fluid during Treatment of Tuberculosis Meningitis. *International Journal of Infectious Diseases* 2019; 84:15-21. PMID: 31051278.
 41. Chong YE, Chiang M, Deshpande K, Haroutounian S, **Kagan L**, Lee JB. Simultaneous quantification of ondansetron and tariquidar in rat and human plasma using HPLC-UV. *Biomedical Chromatography* 2019; 33:e4653. PMID: 31322284.
 42. Lee JB, Radhi M, Cipolla E, Gandhi R, Sarmad S, Zgair A, Kim TW, Feng W, Qin C, Adrower C, Ortori C, Barrett D, **Kagan L**, Fischer P, de Moor C, and Gershkovich P. A novel nucleoside rescue metabolic pathway may be responsible for therapeutic effect of orally administered cordycepin. *Scientific Reports* 2019; 9:15760. PMID: 31673018.
 43. Sabri AH, Kim Y, Marlow M, Scurr DJ, Segal J, Banga AK, **Kagan L**, and Lee JB. Intradermal and transdermal drug delivery using microneedles - fabrication, performance evaluation and application to lymphatic delivery. *Advanced Drug Delivery Reviews* 2020; 153:195-215. PMID: 31634516.
 44. Ali J, Chiang M, Lee JB, Voronin GO, Bennett J, Cram A, **Kagan L**, Garnett MC, Roberts CJ, and Gershkovich P. Is rat a good model for assessment of particulate-based taste-masked formulations? *European Journal of Pharmaceutics and Biopharmaceutics* 2020; 146:1-9. PMID: 31726218.
 45. Back HM, Lee JB, Kim A, Park SJ, Kim J, Chae JW, Sheen SS, **Kagan L**, Park HS, Ye, YM, Yun HY. Exposure-response and clinical outcome modeling of inhaled budesonide/formoterol combination in asthma patients. *Pharmaceutics* 2020; 12(4):336. PMID: 32283726.
 46. Lee JB, Zhou S, Chiang M, Zang X, Kim TH, **Kagan L**. Interspecies prediction of pharmacokinetics and tissue distribution of doxorubicin by physiologically-based pharmacokinetic modeling. *Biopharmaceutics & Drug Disposition* 2020; 41(4-5):192-205. PMID: 32342986.
 47. Gao X, Voronin G, Generaux C, Rose A, Kozhich A, Dalglish G, Rosa R, Oh Sarah, and **Kagan L**. Lymphatic distribution of etanercept following intravenous and subcutaneous delivery to rats. *Pharmaceutical Research* 2020; 37(8):155. PMID: 32720159.
 48. Zentner I, Back HM, **Kagan L**, Nagajyothi J, Subbian S, Pasipanodya J, Srivastava S, Tawanda Gumbo T, Bisson GP, and Vinnard C. Redox imbalance and oxidative DNA damage during isoniazid treatment of HIV-associated tuberculosis: A clinical and translational pharmacokinetic study. *Frontiers in Pharmacology* 2020; 11:1103. PMID: 32848735.
 49. Chiang M, Back HM, Lee JB, Oh S, Guo T, Girgis S, Park C, Haroutounian S, **Kagan L**. Pharmacokinetic modeling of the impact of P-glycoprotein on ondansetron disposition into the central nervous system. *Pharmaceutical Research* 2020; 37(10):205. PMID: 32989520.
 50. Zgair A, Dawood Y, Ibrahim S, Back HM, **Kagan L**, Gershkovich P, Lee JB. Predicting intestinal and hepatic first-pass metabolism of orally administered testosterone undecanoate. *Applied Sciences* 2020; 10(20), 7283.
 51. Chiang MD, Frey K, Lee C, Kharasch E, Tallchief D, Sawyer C, Blood J, Back HM, **Kagan L**, Haroutounian S. Plasma and cerebrospinal fluid pharmacokinetics of ondansetron in humans. *British Journal of Clinical Pharmacology* 2021; 87(2):516-526. PMID: 32495990.
 52. Lee JB, Zang X, Zgair A, Ooi TQ, Foley DW, Voronin G, **Kagan L**, Soukarieh F, Gao R, Shao H, Soh WT, Kim TH, Kim MG, Yun H, Wilson AJ, Fischer PM, Gershkovich P. Postprandial administration but not controlled release in the colon increases oral bioavailability of DF030263, a promising cyclin-dependent kinase 9 inhibitor for chronic lymphocytic leukemia. *European Journal of Pharmaceutics and Biopharmaceutics* 2021; 165:106-112. PMID: 33991611.
 53. Brunetti L, Back HM, Yu S, Jalil U, **Kagan L**. Evaluation and enhancement of standard equations for renal function estimation in individuals with components of metabolic disease. *BMC Nephrology* 2021;22(1):389. PMID: 34809582.

54. Rao PS, Moore CC, Mbonde A, Nuwagira E, Oririkiza P, Nyehangane D, Al-Shaer MH, Peloquin CA, Gratz J, Pholwat S, Arinaitwe R, Boum Y, Mwangi-Amumpaire J, Houpt ER, **Kagan L**, Heysell SK, Muzoora C. Population pharmacokinetics and significant under-dosing of anti-tuberculosis medications in people with HIV and critical illness. *Antibiotics* (Basel) 2021; 10(6):739. PMID: 34207312.
55. Todorovic MS, Frey K, Swarm RA, Bottros M, Rao L, Tallchief D, Kraus K, Meacham K, Bakos K, Zang X, Lee JB, **Kagan L**, Haroutounian S. Prediction of individual analgesic response to intravenous lidocaine in painful diabetic peripheral neuropathy: a randomized, placebo-controlled, cross-over trial. *The Clinical Journal of Pain* (accepted 2021). PMID: 34723864.
56. Rizzolo D, Kong B, Piekos S, Chen L, Zhong XB, Lu J, Shi J, Zhu HJ, Yang Q, Li AP, Li L, Wang H, Siemiątkowska A, Park C, **Kagan L**, Guo GL. Effects of overexpression of fibroblast growth factor 15/19 on hepatic drug metabolizing enzymes. *Drug Metabolism and Disposition* 2021(online first); PMID: 34965924

Book Chapters

1. Gershkovich P, **Kagan L**, and Hoffman A. Lymphatic absorption of nanoparticles. In: *Nanoparticles for Pharmaceutical Applications*, Editors: Domb AJ, Tabata Y, Ravi Kumar MNV, Farber S. 1st edition, American Scientific Publisher, p.167-176, 2007.

Selected Abstracts and Proceedings of Symposia

1. **Kagan L**, Mendelman A, Gershkovich P, Ezov N, and Hoffman A. A rat model for the evaluation of lymphatic absorption of drugs following SC administration, 3rd World Conference on Drug Absorption, Transport and Delivery, Barcelona, Spain (April 18-20, 2005).
2. Hoffman A, Afargan M, Tzabari M, Mor E, **Kagan L**, Kirmayer D, Fass S, Lapidot N, Mardor Y and Friedman M. An innovative platform for gastric retention and controlled release of drugs under low calorie diet: Gastroretentivity evaluation using MRI, Controlled Release Society 32nd Annual Meeting & Exposition, Miami, FL (2005).
3. Afargan M, **Kagan L**, Kirmayer D, Moor E, Kluev L, Lapidot N, Friedman M and Hoffman A. Gastroretentive Accordion pill: Unaltered food transit and enhanced riboflavin bioavailability, Controlled Release Society 33rd Annual Meeting, Vienna, Austria (July 22-26, 2006).
4. **Kagan L** and Hoffman A. The effect of gastroretentive dosage forms on pharmacokinetic profile of model drugs in a rat model, 4th World Conference on Drug Absorption, Transport and Delivery, Kanazawa, Japan (June 20-22, 2007).
5. **Kagan L**, Gershkovich P, Mendelman A, Amsili S, Ezov N, and Hoffman A. Subcutaneous lymphatic absorption of macromolecules in a rat model, 6th Annual Meeting of Israeli Chapter of Controlled Release Society, Caesarea, Israel (September 5-6, 2007).
6. **Kagan L** and Hoffman A. The rat model for selection of drug candidates for gastroretentive dosage forms, 6th Annual Meeting of Israeli Chapter of Controlled Release Society, Caesarea, Israel (September 5-6, 2007).
7. Sivan S, Czerninski R, Steinberg D, Gati I, **Kagan L**, and Friedman M. Novel sustained-release clotrimazole varnish for local treatment of oral candidiasis. International Association for Dental Research Israeli Division Meeting, Tel-Aviv, Israel (June 5-6, 2008).
8. **Kagan L**, Abraham AK and Mager DE. Interferon-beta biodisposition and effect on osteolytic lesions, 1st Center for Therapeutic Proteins Annual Symposium, Buffalo, NY (2009).
9. **Kagan L**, Abraham AK and Mager DE. Application of target-mediated drug disposition model for interspecies scaling of interferon-beta pharmacokinetics, AAPS Annual Meeting, Los Angeles, CA (November 8-12, 2009).
10. **Kagan L**, Gershkovich P, Wasan KM, Mager DE. Physiologically-based pharmacokinetic model of amphotericin B disposition in rats. AAPS Annual Meeting, New Orleans, LA (November 14-18, 2010).
11. **Kagan L**, Turner M, Balu-Iyer SV, Mager DE. Dose and Injection Site Dependent Subcutaneous Absorption of Rituximab in Rats: Use of Pharmacokinetic Modeling to Investigate the Mechanism of Nonlinear Absorption. AAPS National Biotechnology Conference, San Francisco, CA (May 16-19, 2011).

12. Lavy E, Horwitz E, Avni-Magen N, Hoffman A, **Kagan L**, Daryi D, Friedman M. A novel single-dose subcutaneous controlled-release amoxicillin degradable implant for veterinary medicine use. Controlled Release Society 38th Annual Meeting, National Harbor, MD (July 30-August 3, 2011).
13. Ovacik AM, **Kagan L**, Zhao J, Mager DE. Algorithmic study design for identification of target expression from disposition data. 3rd Center for Therapeutic Proteins Annual Symposium, Buffalo, NY (August 16, 2011).
14. Zhang W, **Kagan L**, Mager DE. Development of a general platform for interferon pharmacokinetics and pharmacodynamics. 3rd Center for Therapeutic Proteins Annual Symposium, Buffalo, NY (August 16, 2011).
15. Ovacik AM, **Kagan L**, Mager DE. Algorithmic study design for parameter estimation of rapid-binding TMDD models for therapeutic proteins. AAPS National Biotechnology Conference, San Diego, CA (May 21-24, 2012).
16. **Kagan L** and Mager DE. Absorption mechanisms of monoclonal antibodies following subcutaneous injection in rats and mice. 4th Center for Therapeutic Proteins Annual Symposium, Buffalo, NY (August 13, 2012).
17. **Kagan L**, Gershkovich P, Wasan KM, Mager DE. Physiologically-based modeling of tissue distribution of amphotericin B following administration of liposomal formulation (AmBisome®). AAPS Annual Meeting, Chicago, IL (October 15-18, 2012).
18. Zhao X, Harrold JM, **Kagan L**, Straubinger RM, Mager DE. Predicting combinatorial efficacy of rituximab and doxorubicin in non-Hodgkin lymphoma xenografts. American Conference on Pharmacometrics (ACoP), Fort Lauderdale, FL (May 12-15, 2013). *Journal of Pharmacokinetics and Pharmacodynamics* 40:S105-S106, 2013.
19. **Kagan L**, Cheng T, Mager DE. Modeling disease progression and exenatide pharmacodynamics in STZ/NA induced diabetic rats. National Biotechnology Conference, San Diego, CA (May 20-22, 2013).
20. Ginosar Y, Haroutiunian S, **Kagan L**, Davidson E. A novel proliposomal ropivacaine preparation: preclinical and human volunteer studies. Society for Obstetric Anesthesia and Perinatology 46th Annual Meeting, Toronto, Canada (May 14-18, 2014).
21. **Kagan L**, Zhao J, Mager DE. Model-based scaling of subcutaneous absorption of rituximab in rodents. National Biotechnology Conference, San Diego, CA (May 19-21, 2014).
22. Ginosar Y, Haroutiunian S, **Kagan L**, Naveh M, Cooper S, Aharon A, Davidson E. A novel proliposomal ropivacaine preparation: pharmacokinetic and pharmacodynamic studies in animals and humans. 23rd International Congress of the Israel Society of Anesthesiologists and Critical Care, Tel Aviv, Israel (September 16-18, 2014).
23. Kalaria NS, **Kagan L**, Brunetti L. Evaluation of plasma and tissue pharmacokinetics of cefoxitin in bariatric surgery patients. 49th American Society Health-System Pharmacist Midyear Clinical Meeting, Anaheim, CA (December 7-11, 2014).
24. Zang X, **Kagan L**. Physiologically-based modeling of paclitaxel pharmacokinetics following administration of Taxol. AAPS Annual Meeting, Orlando, FL (October 25-29, 2015).
25. Yao Z, Zang X, Yang CS, **Kagan L**. Physiologically-based modeling of cisplatin pharmacokinetics. Rutgers Research Day, Piscataway, NJ (April 26, 2016).
26. Chapy H, Brunetti L, and **Kagan L**. Evaluation of body weight descriptors in modeling of cefoxitin and cefazolin pharmacokinetics in the normal and obese populations. American Conference of Pharmacometrics (ACOP7), Seattle, WA (October 23-27, 2016). *Journal of Pharmacokinetics and Pharmacodynamics* 43:S55-S56, 2016.
27. Pyszczynski E, Lin KJ, Zhang W, Cao Y, Jusko WJ, **Kagan L**, and Mager DE. Minimal physiological model of trastuzumab and rituximab subcutaneous absorption across species. American Conference of Pharmacometrics (ACOP7), Seattle, WA (October 23-27, 2016). *Journal of Pharmacokinetics and Pharmacodynamics* 43:S74, 2016.
28. Voronin GO, Chiang M, Zang X, **Kagan L**, Theis T, Lyu L. Advancing rare disease discovery by bringing 3D printing to the lab. Advancing Rare Disease Drug Discovery, New York City, NY (October 25, 2016).
29. Brunetti L, Chapy H, Miao B, **Kagan L**. Endogenous serum immunoglobulin concentrations in hospitalized patients, American College of Allergy, Asthma and Immunology (ACAAI) Annual Scientific

- Meeting 2016, San Francisco, CA (November 10-14, 2016). *Annals of Allergy Asthma & Immunology* 117(5):S91, 2016.
30. Chiang M, Haroutounian S, and **Kagan L**. Physiologically-based and interspecies modeling of ondansetron pharmacokinetics: analysis of published data. 2016 AAPS Annual Meeting, Denver, CO (November 13-17, 2016).
 31. Lee JB, Zang X, Voronin G, Zgair A, Soukarieh F, Fischer PM, Brunetti L, Gershkovich P, and **Kagan L**. Pharmacokinetics of drugs could be altered following extensive surgeries. 2016 AAPS Annual Meeting, Denver, CO (November 13-17, 2016).
 32. Lee JB, Zgair A, Taha D, Zang X, **Kagan L**, Kim TH, Kim MG, Yun HY, Fischer PM, and Gershkovich P. Quantitative analysis of lab-to-lab variability in Caco-2 permeability assays. 2016 AAPS Annual Meeting, Denver, CO (November 13-17, 2016).
 33. Chapy H, Brunetti L, and **Kagan L**. Evaluation of body weight descriptors in modeling of cefoxitin and cefazolin pharmacokinetics in the normal and obese populations. The 8th Annual Rutgers Postdoctoral Symposium, Piscataway, NJ (April 28, 2017).
 34. Zang X, Pawaskar D, Zhang Y, Pragst I, Machnig T, **Kagan L**, Tortorici MA, and Sidhu J. A population pharmacodynamic model of C4 antigen concentrations and C1-Esterase Inhibitor functional activity in hereditary angioedema patients. National Biotechnology Conference, San Diego, CA (May 1-3, 2017).
 35. Chapy H, **Kagan L**, Na A, Moore R, Nahass R, Brunetti L. The influence of body composition on intravenous immune globulin half-life in patients with primary immunodeficiency. ACCP Annual Meeting, Phoenix, AZ (October 10, 2017). *Pharmacotherapy* 37(12):E205, 2017.
 36. Chiang MD, **Kagan L**. Understanding the impact of P-glycoprotein on CNS disposition of ondansetron. 2017 AAPS Annual Meeting, San Diego, CA (November 12-15, 2017).
 37. Ali J, Chiang MD, Voronin G, **Kagan L**, Bennett J; Cram A; Garnett M; Clive Roberts C; Gershkovich P. Characterization of rat saliva to understand applicability of the rat as a tool for assessing solid oral dosage forms. 11th World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology. Granada, Spain (March 19-22, 2018).
 38. Chiang MD, **Kagan L**. Understanding the impact of P-glycoprotein on CNS disposition of ondansetron. Rutgers Pharmacy Research Day (April 17, 2018).
 39. Oh S, Zang X, **Kagan L**. Comparison of Paclitaxel Toxicity to Cancer Cell Line A549 in Two Different Formulations. Rutgers Pharmacy Research Day (April 17, 2018).
 40. Zang X, Garbuzenko O, Minko T, **Kagan L**. Delivery of paclitaxel by liposomes limits chemotherapy-induced peripheral neuropathy, Control Release Society Meeting, New York City, NY (July 22-24, 2018).
 41. Zang X, **Kagan L**. Physiologically-Based Modeling of Cisplatin Pharmacokinetics. ACOP9. San Diego, CA (October 7-10, 2018).
 42. Brunetti L, Wassef A, Sadek R, Riley P, **Kagan L**. Influence of body composition on venous thromboembolism (VTE) prophylaxis in sleeve gastrectomy patients. American College of Surgeons Clinical Congress. Boston, MA (October 21-25, 2018).
 43. Na A, Rusay M, Bridgeman M, **Kagan L**, Brunetti L. Intravenous Immunoglobulin Dosing Protocols in Obese Patients with Acute versus Chronic Indications. 2018 ACCP Global Conference of Clinical Pharmacy. Seattle, WA (October 20-23, 2018).
 44. Lee JB, Gao X, **Kagan L**. Pharmacokinetic modeling of the effect of recombinant human hyaluronidase (rHuPH20) in subcutaneous absorption. AAPS PharmSci 360. Washington, DC (November 4-7, 2018).
 45. Lee JB, Zang X, Kim TH, **Kagan L**. Mechanistic prediction of effect of P-glycoprotein inhibition on oral absorption and disposition of vemurafenib into the brain using IVIVE-PBPK. AAPS PharmSci 360. Washington, DC (November 4-7, 2018). *Selected for best poster award.
 46. Chiang MD, **Kagan L**. Evaluating the quantitative role of P-glycoprotein on CNS disposition of ondansetron. AAPS PharmSci 360. Washington, DC (November 4-7, 2018). *Selected for the best poster award.
 47. Lee JB, Zgair A, Qin C, Feng W, Ali J, Chiang MD, Gao X, Kim TH, **Kagan L**, Fisher PM, Gershkovich P. Lipophilic activated ester prodrug approach for drug delivery of bexarotene and retinoic acid to the intestinal lymphatic system. AAPS PharmSci 360. Washington, DC (November 4-7, 2018).

48. Na A, Rusay M, Bridgeman M, **Kagan L**, Brunetti L. Effect of varying weight-based dosing protocols on adverse event frequency in obese patients receiving Intravenous Immunoglobulin in inpatient versus outpatient settings. 2018 ASHP Midyear Clinical Meeting. Anaheim, CA (December 2-6, 2018).
49. Kosicka K and **Kagan L**. HPLC-FLD method for the determination of pregabalin in human plasma. 1st ORBIS annual meeting. Trinity College, Dublin, Ireland (June 12-14, 2019).
50. Gao X, Voronin G, Generaux C, Rose A, Kozhich A, Dalglish G, Rosa R, Oh Sarah, and **Kagan L**. Lymphatic distribution of etanercept following intravenous and subcutaneous delivery to rats. ACOP11 (virtual meeting, November 10-13, 2020).

Teaching

1. Fall 2011, 2012 - Computational Basis of Pharmacometrics (PHC504), 2 credits, Lecturer, Graduate, University at Buffalo, NY
2. Spring 2012 - Advanced Pharmacokinetics (PHC608), 3 credits, Lecturer, Graduate, University at Buffalo, NY
3. Fall 2012, 2015, 2018, 2021 - Advanced Pharmacokinetics and Dynamics (16:720:509), 3 credits, Lecturer and Course Coordinator, Graduate, Rutgers University, NJ
4. Spring 2013-2022 - Introduction to Biopharmaceutics and Pharmacokinetics (30:721:430), 4 credits, Lecturer and/or Course Coordinator, Undergraduate, Rutgers University, NJ
5. Fall, Summer, Spring 2013-2022 – Graduate Research in Pharmaceutical Sciences (16:720:701, 16:720:702), 3 credits, Course Coordinator, Graduate, Rutgers University, NJ
6. Spring 2014, 2017, 2020 - Molecular and Cellular Pharmaceutics (16:720:614), 3 credits, Lecturer, Graduate, Rutgers University, NJ
7. Fall 2014, 2018, 2021 – Seminar in Pharmaceutical Sciences (16:720:601), 1 credit, Course Coordinator, Graduate, Rutgers University, NJ
8. Spring 2015-2022 – Molecular Toxicology (16:963:505), 4 credits, Lecturer, Graduate, Rutgers University, NJ

Service

Editorial Board

Frontiers in Drug Metabolism and Transport
Journal of Pharmaceutical Sciences

Reviewer for Journals

The AAPS Journal, Biodrugs, Biopharmaceutics and Drug Disposition, Canadian Journal of Physiology and Pharmacology, Cellular Oncology, Clinical Pharmacokinetics, CPT: Pharmacometrics & Systems Pharmacology, Clinical Pharmacology and Drug Development, Clinical Pharmacology and Therapeutics, CNS Drugs, Current Pharmacology Reports, Drug Metabolism and Disposition, European Journal of Clinical Pharmacology, European Journal of Drug Metabolism and Pharmacokinetics, European Journal of Pharmaceutics and Biopharmaceutics, Expert Opinion on Drug Metabolism and Toxicology, International Journal of Pharmaceutics, International Journal of Nanomedicine, Journal of Clinical Pharmacology, Journal of Neurochemistry, Journal of Pain and Palliative Care Pharmacotherapy, Journal of Pharmaceutical Sciences, Journal of Pharmacokinetics and Pharmacodynamics, Journal of Pharmacology and Experimental Therapeutics, Mabs, Molecular Pharmaceutics, Neuropsychiatric Disease and Treatment, Pharmaceutical Research, Planta Medica, PLOS One, SAGE Open Medical Case Reports, Xenobiotica.

Scientific Societies

ISoP/ACoP Awards Committee (2018-present)

Conference/Symposium/Meeting/Workshop Organizer

AAPS 2nd Biotherapeutics ADME workshop, Buffalo, NY (August 11-12, 2013)

Mini-symposium on quantitative systems biology pharmacology, Rutgers University, Piscataway, NJ (May 7, 2014)

Model-based drug development – introductory course on mechanistic prediction of PK at the population level, Simcyp simulator workshop, Rutgers University, Piscataway, NJ (November 9-10, 2015)

GastroPlus training in PK and PBPK, Rutgers University, Piscataway, NJ (December 5-6, 2016)

Phoenix workshop, Rutgers University, Piscataway, NJ (April 16, 2018)

Simcyp simulator workshop, Rutgers University, Piscataway, NJ (October 18-19, 2018)

Monolix workshop, Rutgers University, Piscataway, NJ (December 5, 2018)

Service to Rutgers University, Ernest Mario School of Pharmacy, and Department of Pharmaceutics

Member of School of Pharmacy's Computer, Library, Instructional Technology Committee (2013-present)

Member of Admission Committee of the Graduate Program in Pharmaceutical Sciences (2015-present)

Member of Graduate Student Committee (2013-present)

Member, PharmD Program Working Group (2018)

Selected Research Support

Ongoing

1. Title: Mechanisms of obesity-induced changes in drug pharmacokinetics (PI: Kagan)
Source: NIH, NIGMS, 1R01GM124046-01A1
Period: 08/01/18 – 03/31/23
Role: PI
2. Title: Urine Colorimetry for Tuberculosis Pharmacokinetics Evaluation in Children and Adults (PI: Heysell; University of Virginia)
Source: NIH, NIAID, 1R01AI137080-01A1
Period: 09/24/18 – 08/31/23
Role: Co-I
3. Title: 5-HT₃ receptor antagonists for neuropathic pain (PI: Haroutounian; Washington University)
Source: NIH, NINDS, 1R01NS104500-01
Period: 02/15/18 – 01/31/23
Role: Co-I
4. Title: Tumor-targeted nanoparticle-based delivery system for imaging and treatment of various cancers (PI: Minko; Rutgers)
Source: NIH, NCI, 1R01CA209818-01A1
Period: 04/21/17 – 03/31/22
Role: Co-I
5. Title: Gut-liver crosstalk by FGF15/19 in regulating xenobiotic nuclear receptor activation (PI: Guo; Rutgers)
Source: NIH, NIGMS 1R01GM135258-01A1
Period: 06/01/20 – 05/31/24
Role: Co-I
6. Title: Open Research Biopharmaceutical Internships Support - MSCA-RISE 2017 Proposal No. 778051 (PI: Michniak-Kohn B. and Lulek J.)
Source: MSCA-RISE-Maria Skłodowska-Curie Research and Innovation Staff Exchange:

Period: 03/01/18 – 09/28/22
Role: Co-Advisor at Rutgers

7. Title: Mechanistic evaluation of melatonin as a protectant against antibiotic associated kidney injury (PI: Brunetti; Rutgers)
Source: NIH, NIDDK
Period: 01/15/22 – 01/14/27
Role: Co-I

Completed

1. Title: Mechanisms of obesity-induced changes in drug pharmacokinetics - Supplement (PI: Kagan)
Source: NIH, NIGMS, 3R01GM124046-02S1
Period: 04/01/19 – 03/31/20
Role: PI
2. Title: Mechanisms of oral absorption and interaction potential of dabigatran etexilate (PI: Kagan, L)
Source: Charles and Johanna Busch Memorial Fund Program
Period: 07/01/14 – 06/30/16
Role: PI
3. Title: Optimization of dosing of monoclonal antibodies in obese population (PI: Kagan, L)
Source: Pharmaceutical Research and Manufacturers of America (PhRMA) Foundation
Period: 07/01/15 – 06/30/16
Role: PI