Xiaoming Xu

PUBLICATIONS

101 journal articles | 2 book chapters | Updated 2026-11-20

2027

1. X. Dong, H. Qu, M. Shih, X. Xu, P. Faustino, G. Tian, M. Ashraf, M. Korang-Yeboah*. **A multi-platform characterization of aggregation in morpholino oligonucleotide drug products: From soluble aggregates to subvisible particles**. *Journal of Pharmaceutical Sciences (2027), 116(1):104588.*
2. H. Wang, G. Zou, Y. Liang, J. Gu, R. Lupitskyy, X. Dong, M. Essandoh, D. Shakleya, X. Xu, D. Keire, P. Faustino*. **The photostability of ketamine products: part ii impact of light exposure and storage on multi-use ketamine parenteral products**. *International Journal of Pharmaceutics (2027), 706:127544.*

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3. J. Zhao, G. Tian*, W. Yang, D. Jayanti, A. Koolivand, X. Xu. **Advanced control of continuous pharmaceutical manufacturing processes: A case study on the application of artificial neural network for predictive control of a CDC line**. *Computers & Chemical Engineering (2026), 207:109560.*
4. K.R. Roy, A. Wanasathop, L. Xu, J. Wang, S.G. Coelho, S.A. Adah, T.M. Michele, P.J. Faustino, M. Ashraf, X. Xu, Y. Yang*. **In Vitro Permeation Testing of Sunscreens using Reconstructed Human Skin versus Human Cadaver Skin Models**. *AAPS PharmSciTech (2026), 27(2):95.*
5. R.U. Zaman, C. Johnson, W. Smith, Y. Wang, Z. Zhong, F. Zhang, X. Xu*. **In vitro release testing of levonorgestrel intrauterine systems: Correlation of accelerated release rates in organic/aqueous release media to Hansen Solubility Parameters**. *International Journal of Pharmaceutics (2026), 695:126786.*
6. X. Xu*, W.C. Smith, J.E. Polli*, C.L. Plavchak, B. Qin, Y. Wang, N. Holtgrewe, S.G. Raney, A. O'Reilly Beringhs, Y.B. Yu, M. Taraban, V. Krishnan, A. Schwendeman, D.C. Hammell, J.D. Clogston, A.F. Rawle, J. Grmaš, Y. Ayoub, B. Domnic, R.S. Reddy, J. Duncan, M. McGann, J. Bodycomb, C.C.L. Schuurmans, M. Hermes, J.G. Mehtala, P. Roy, K. Lance, C. Britten, K. Park, D. Beach, M. Elmer, K.B. Rodenhausen, Z. Xu, H. Qu, K.W. Wu, M. Korang-Yeboah, Y. Zou, J. Li, A.H. Abuznait, C. Quinn, A. Ethier, K. Ip, D. Dhamecha, Q. Li, D. Zhu, R. Valapil. **Mastering particle size analysis: lessons, challenges, and future directions from the FDA-CRCG workshop**. *AAPS Open (2026), 12(1):11.*
7. J. Zhang*, M. Shih, J. Yang, D.A. Keire, X. Xu, P.J. Faustino. **Minimizing in Source Fragmentation for Mass Spectrometry Based NDSRI Analytical Procedures: A Case Study of Nitroso-bumetanide**. *The AAPS Journal (2026), 28(2):69.*
8. K.R. Roy, E. Tsakalozou, L. Xu, A.-M. Afrifa, A. Wanasathop, S.A. Adah, S.G. Coelho, M. Ashraf, X. Xu, Y. Yang*. **Physiologically Based Pharmacokinetic (PBPK) Modeling to Predict Pharmacokinetic Endpoints of a Sunscreen Lotion Containing Oxybenzone**. *AAPS PharmSciTech (2026), 27(8):356.*
9. G. Zou, H. Wang, R. Lupitskyy, J. Gu, D. Johnson, D. Shakleya, X. Xu, P. Faustino*. **Process-dependent N-nitroso-ketamine formation during ketamine active pharmaceutical ingredient manufacturing: part I impact of process design, solvent selection, and activated carbon**. *International Journal of Pharmaceutics (2026), 702:127183.*

Paper titles link to published records. * Corresponding author.

10. J. Gu, S. Li, G. Zou, N. Tampal, L. Xia, M. Kaur, D.S. Oh, X. Xu, P.J. Faustino, D.A. Keire, D. Shakleya*. **Simultaneous quantification of D-penicillamine, D-penicillamine disulfide, and L-cysteine-D-penicillamine disulfide in human plasma: optimization of sample preparation and mass spectrometry procedures to support bioequivalence studies**. *Bioanalysis (2026), 18(7):607-617.*

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11. H. Stamato*, M. Korang-Yeboah, J. Rangineni, X. Xu, R. Bogner. **Advanced Manufacturing, Modeling And Analytical Tools In Injectable Products**. *Pharmaceutical Research (2025), 42(3):413-418.*
12. L. Kuehster*, M. Bingham, J. Dai, Y.K. Jhon, Y. Wang, B. Qin, W.C. Smith, X. Xu, F. Zhang, N.A. Lynd*. **Characterization of the Repeat Unit Sequence of Poly(lactide-co-glycolide)**. *Macromolecules (2025), 58(8):3886-3897.*
13. M.A. VandenBerg, R.U. Zaman, C.L. Plavchak, W.C. Smith, H.B. Nejad, A.O.R. Beringhs, Y. Wang, X. Xu*. **Impact of polymer source variations on hydrogel structure and product performance in dexamethasone-loaded ophthalmic inserts**. *International Journal of Pharmaceutics (2025), 682:125959.*
14. M.A. VandenBerg, X. Dong, W.C. Smith, G. Tian, O. Stephens, T.F. O'Connor, X. Xu*. **Learning from the future: towards continuous manufacturing of nanomaterials**. *AAPS Open (2025), 11(1):7.*
15. A. Ren, Z. Zhong, Y. Wang, B. Qin, W. Smith, X. Xu, T. Listro, F. Zhang*. **Manufacture, characterization, and elucidation of drug release mechanisms of etonogestrel implants based on ethylene vinyl acetate**. *Journal of Pharmaceutical Sciences (2025), 114(1):199-209.*
16. R.L. Walenga*, A.H. Babiskin, H.J. Boyce, X. Feng, A. Zidan, N.S. Kamal, X. Xu, M.J. Kim, L. Zhao. **Nasal absorption of oxycodone predicted using a novel computational fluid dynamics-physiologically based pharmacokinetic model**. *Journal of Controlled Release (2025), 378:982-996.*
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18. Z. Xia, Y. Liu, Z. Lu, J. Gan, M. Yu, K. Olsen, Y. Wang, X. Xu, S. Schwendeman, A. Schwendeman*. **The impact of product quality attributes on in vivo performance of bupivacaine multivesicular liposomes**. *Drug Delivery and Translational Research (2025), 15(9):3268-3280.*
19. A. Ren, Z. Zhong, M. Magaw, Y. Wang, B. Qin, W. Smith, X. Xu, T. Listro, F. Zhang*. **Understanding the impact of accelerated release testing conditions on physicochemical properties and drug release mechanisms from etonogestrel implants based on ethylene vinyl acetate**. *European Journal of Pharmaceutics and Biopharmaceutics (2025), 214:114805.*
20. C.L. Plavchak, J. Liu, Y. Wang, X. Xu, P.J. Faustino, H. Qu*, W.C. Smith*. **Utilization of AF4 for characterizing complex nanomaterial drug products: Reexamining sample recovery and its impact on particle size distribution as a quality attribute**. *Journal of Chromatography A (2025), 1743:465703.*

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21. L. Kuehster*, J. Dai, A. Thompson, Y.K. Jhon, Y. Wang, B. Qin, W.C. Smith, X. Xu, F. Zhang, N.A. Lynd*. **Analysis of Copolymerization with Simultaneous Reversibility and Transesterification by Stochastic Model Regression**. *Macromolecules (2024), 57(9):4034-4044.*
22. J. Zhang*, R. Raghavachari, D.C. Kirkpatrick, D.A. Keire, X. Xu, P.J. Faustino. **Analytical Procedure Development and Proposed Established Conditions: A Case Study of a Mass Spectrometry Based NDSRI Analytical Procedure**. *Journal of Pharmaceutical Sciences (2024), 113(10):3028-3033.*
23. Z. Xia, M. Yu, Y. Liu, W. Yuan, Y. Wang, X. Xu, J. Bae, A. Schwendeman*. **Development of an Accelerated Rotator-based Drug Release Method for the Evaluation of Bupivacaine Multivesicular Liposomes**. *Pharmaceutical Research (2024), 41(2):293-303.*
24. Y. Yang*, J. Wang, A. Wanasathop, M. Niu, P. Ghosh, A. Zidan, J. Gu, R. Hunt, P. Faustino, M. Ashraf, X. Xu. **Evaluation of in vitro Skin Permeation of Clascoterone From Clascoterone Topical Cream, 1% (w/w)**. *AAPS PharmSciTech (2024), 25(6):186.*
25. R. Huang, D. Zhu, J. Wang, Y. Berko, P.A. Yu, C.M. Parker, Y.C. Yu, X. Feng, X. Xu, M. Ashraf*. **Food selection and effect of home preparation procedure for antibiotic food mixtures on homogeneity, stability, and dissolution**. *International Journal of Pharmaceutics (2024), 655:123993.*
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27. T. Duran, A.P. Costa, J. Kneski, X. Xu, D.J. Burgess, H. Mohammadiarani, B. Chaudhuri*. **Manufacturing process of liposomal Formation: A coarse-grained molecular dynamics simulation**. *International Journal of Pharmaceutics (2024), 659:124288.*

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29. H. Qu*, W.C. Smith, X. Feng, J. Wang, J. Pinto, X. Xu, P.J. Faustino*. **Asymmetrical Flow Field Flow Fractionation for Molar Mass Characterization of Polyethylene Oxide in Abuse-Deterrent Formulations**. *Journal of Chromatography A (2023), 1705:464186.*
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31. W.C. Smith, H. Qu, K. Zheng, J.H. Baek, Y. Gao, P.W. Buehler, X. Feng*, X. Xu*. **Determining critical overlap concentration of polyethylene oxide to support excipient safety assessment of opioid products**. *International Journal of Pharmaceutics (2023), 632:122557.*
32. M.A. Costello, J. Liu, B. Chen, Y. Wang, B. Qin, X. Xu, Q. Li, N.A. Lynd, F. Zhang*. **Drug release mechanisms of high-drug-load, melt-extruded dexamethasone intravitreal implants**. *European Journal of Pharmaceutics and Biopharmaceutics (2023), 187:46-56.*

33. M.A. Costello, J. Liu, Y. Wang, B. Qin, X. Xu, Q. Li, W.C. Smith, N.A. Lynd, F. Zhang*. **Manufacturing dexamethasone intravitreal implants: Process control and critical quality attributes**. *International Journal of Pharmaceutics (2023), 647:123515.*
34. C.G. Simon*, S.E. Borgos, L. Calzolai, B.C. Nelson, J. Parot, E.J. Petersen, M. Roesslein, X. Xu, F. Caputo*. **Orthogonal and complementary measurements of properties of drug products containing nanomaterials**. *Journal of Controlled Release (2023), 354:120-127.*
35. A. Belenos, E.L. Wood, M. Hu, D. Kozak, X. Xu, A.C. Fisher*. **Product Quality Research for Developing and Assessing Regulatory Submissions for Generic Cyclosporine Ophthalmic Emulsions**. *The AAPS Journal (2023), 25(1):20.*
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37. M.A. Costello, J. Liu, L. Kuehster, Y. Wang, B. Qin, X. Xu, Q. Li, W.C. Smith, N.A. Lynd, F. Zhang*. **Role of PLGA Variability in Controlled Drug Release from Dexamethasone Intravitreal Implants**. *Molecular Pharmaceutics (2023), 20(12):6330-6344.*
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43. T. Duran, A. Costa, A. Gupta, X. Xu, H. Zhang, D. Burgess, B. Chaudhuri*. **Coarse-Grained Molecular Dynamics Simulations of Paclitaxel-Loaded Polymeric Micelles**. *Molecular Pharmaceutics (2022), 19(4):1117-1134.*
44. R.A. Bellantone*, K.B. Shah, P.G. Patel, M. Kaplan, X. Xu, V. Li, B. Newman, M. Abul Kaisar. **Cyclosporine release and distribution in ophthalmic emulsions determined by pulsatile microdialysis**. *International Journal of Pharmaceutics (2022), 615:121521.*

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49. J. Garner, S. Skidmore, J. Hadar, H. Park, K. Park*, A. Otte, Y.K. Jhon, X. Xu, B. Qin, Y. Wang. **Scanning Analysis of Sequential Semisolvent Vapor Impact To Study Naltrexone Release from Poly(lactide-co-glycolide) Microparticles**. *Molecular Pharmaceutics (2022), 19(11):4286-4298.*
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