Exponent®
Engineering & Scientific Consulting

Morgan Ashcraft, Ph.D.

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Professional Profile

Dr. Morgan Ashcraft is a licensed regulatory professional (RAC-Drugs) specializing in consulting for medical devices and pharmaceuticals across all stages of the product's lifecycle. Experience has included Class I, II, and III medical devices, biologics, and pharmaceuticals and is inclusive of pre- and post-market activities.

Dr. Ashcraft has expertise in scientific research and analyses related to interactions between implantable medical devices and their environments. She has expertise in products featuring blood-contacting surfaces and antimicrobial materials. Her training ranges from synthesis and fabrication to in-depth material characterization to biological assessments. Dr. Ashcraft also has extensive knowledge of nanoparticle drug-delivery systems, pharmaceutical formulation testing, and antibiotic adjuvants/potentiators. Her scientific and research work has centered around translational technology to optimize patient outcomes and quality of life.

Prior to joining Exponent, Morgan earned her Ph.D. in Pharmaceutical and Biomedical Sciences at the University of Georgia. Her dissertation focused on multifunctional surfaces and therapies for reduced medical device-associated complications. She worked with a broad range of established biomedical materials and devices as well as ground-breaking, exploratory constructs and formulations.

Academic Credentials & Professional Honors

Ph.D., Pharmacy, University of Georgia, 2022

B.S., Chemistry, Cleveland State University, 2017

Stewart Award, University of Georgia, 2022

Summer Research Grant, University of Georgia, 2021

Innovative and Interdisciplinary Research Grant, University of Georgia, 2020

National Science Foundation Graduate Research Fellowship, 2019-2022

Junior Student of the Year Award, University of Georgia, 2019

Women in Pharma Scholarship, International Society of Pharmaceutical Engineers, 2018

Outstanding Student in Analytical Chemistry, Cleveland State University, 2015-2016

Licenses and Certifications

RAC-Drugs Certified Professional

Academic Appointments

Teaching Assistant, Pharmaceutical Sciences, UGA, 2018-2019

Publications

Gondil V, Ashcraft M, Ghalei S, Kumar A, Wilson S, Devine R, Handa H, Brisbois EJ. Anti-Infective Bacteriophage Immobilized Nitric Oxide-Releasing Surface for Prevention of Thrombosis and Device-Associated Infections. ACS Applied Bio Materials, 2025; 8, 2, 1362-1376.

Ashcraft M, Garren M, Lautner-Csorba O, Pinon V, Wu Y, Crowley D, Hill J, Morales Y, Bartlett R, Brisbois EJ, Handa H. Surface Engineering for Endothelium-Mimicking Functions to Combat Infection and Thrombosis in Extracorporeal Life Support Technologies. Advanced Healthcare Materials 2024, 13, 22, 2400492.

Ozkan E, Bright LM, Kumar A, Pandey R, Devine R, Francis D, Ghalei S, Ashcraft M, Maffe P, Brooks M, Shome A. Bioinspired superhydrophobic surfaces with silver and nitric oxide-releasing capabilities to prevent device-associated infections and thrombosis. Journal of Colloid and Interface Science 2024, 664, 928-37.

Ozkan, Ekrem, Mark Garren, James Manuel, Megan Douglass, Ryan Devine, Arnab Mondal, Anil Kumar, Morgan Ashcraft, Rashmi Pandey, Hitesh Handa. Superhydrophobic and conductive foams with antifouling and oil–water separation properties. ACS Applied Materials & Interfaces 2023; 15, 5, 7610-7626.

Garren, M., Ashcraft, M., Crowley, D., Brisbois, E. J., Handa, H. Derivatization of graphene oxide nanosheets with tunable nitric oxide release for antibacterial biomaterials. Journal of Biomedical Materials Research Part A 2023, 111, 4, 451-464.

Estes Bright, L., Garren, M., Ashcraft, M., Kumar, A., Husain, H., Brisbois, E., Handa, H. Dual Action Nitric Oxide and Fluoride Ion-Releasing Hydrogels for Combatting Periodontal Disease. ACS Applied Materials and Interfaces 2022; 14, 19, 21916–21930.

Ashcraft, M., Douglass, M., Garren, M., Mondal, A., Estes, L., Wu, Y., Handa, H. Nitric Oxide-Releasing Lock Solution for the Prevention of Catheter-Related Infection and Thrombosis. ACS Applied Bio Materials 2022; 5, 4, 1519–1527.

Douglass, M., Hopkins, S., Chug, M., Kim, G., Garren, M., Ashcraft, M., Nguyen, D., Tayag, N., Handa, H., Brisbois, E.Reduction in Foreign Body Response and Improved Antimicrobial Efficacy via Silicone-Oil-Infused Nitric-Oxide-Releasing Medical Grade Cannulas. ACS Applied Materials and Interfaces 2021; 13, 44, 52425–52434.

Devine, R., Douglass, M., Ashcraft, M., Tayag, N., Handa, H. Development of Novel Amphotericin B-Immobilized NO-Releasing Platform for the Prevention of Broad-Spectrum Infections and Thrombosis. ACS Applied Materials & Interfaces 2021; 13, 17, 19613–19624.

Ashcraft, M., Douglass, M., Chen, Y., Handa, H. Combination Strategies for Antithrombotic Biomaterials: An Emerging Trend Towards Hemocompatibility. Biomaterials Science 2021; 9, 2413-2423.

Garren, M., Ashcraft, M., Qian, Y., Douglass, M., Brisbois, E., Handa, H. Nitric Oxide and Viral Infection: Recent Developments in Antiviral Therapies and Platforms. Applied Materials Today 2021; 22, 100887.

Liu, Z., Simchick, G., Qiao, J., Ashcraft, M., Cui, S., Nagy, T., Zhao, Q., Xiong, M. ROS-Triggered Dissociation of a Polyrotaxane-based Nanochelator for the Safe Restoration of Normal Systemic and Hepatic Iron Levels. ACS Nano 2020; 15, 1, 419-433.

Zhao, A., Zheng, Q., Orahoske, C., Idippily, N., Ashcraft, M., Quamine, A., Su, B. Synthesis and biological evaluation of anti-cancer agents that selectively inhibit Her2 over-expressed breast cancer cell growth via down- regulation of Her2 protein. Bioorganic & Medicinal Chemistry Letters 2018; 28 4, 727–731.

Idippily, N., Zheng, Q., Gan, C., Quamine, A., Ashcraft, M., Zhong, B., Su, B. Copalic acid analogs down-regulate androgen receptor and inhibit small chaperone protein. Bioorganic & Medicinal Chemistry Letters 2017; 27, 11, 2292–2295.