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ACADEMIC TRAINING

12/08-12/11 **Postdoc**, Bioengineering, University of California-Berkeley, USA,

01/04-12/08 **Ph.D.,** Chemistry, University of Alberta, Canada,

09/00-12/03 **M.S.**, Pharmaceutical Chemistry, Chongqing University, China,

09/96-07/00 **B.S.**, Chemical Engineering, with Honors, Chongqing University, China,

APPOINTMENTS

2023-present	Associate Professor, Director of Graduate Program, UF College of Pharmacy
2022-present	Affiliated Faculty, Department of Biomedical Engineering, University of Florida
2022-present	Founder and CSO of ExoDeL Inc.
2020-present	Principal Investigator, University of Florida Health Cancer Center
2020-2023	Assistant Professor, College of Pharmacy, University of Florida
2018-2019	Assistant Professor, The University of Kansas
2018-2023	Founder and CSO of Clara Biotech Inc. (Acquired by InnoPrep LLC.)
09/2015-2017	Assistant Professor, Kansas State University
2012-2014	Senior Scientist, University of Kansas Medical Center/ Cancer Center

Other Experience and Professional Memberships

2023-present	Vice Chair, American Association of Pharmaceutical Scientists (AAPS) scientific programing
2023-present	Senior Member, National Academy of Inventors
2023-present	Scientific Board Advisor, UF Interdisciplinary Center for Biotechnology Research
2023-present	Technical Programming Committee, MicroTAS, Chemical and Biological Microsystems Society
2022-present	Board Advisor, Betty Moore Foundation Inventor Fellowship
2021-present	**AAPS** PharmSci 360 Taxonomy Committee, Scientific Programming track leader, Rapid Fire Programming track leader
2021-present	**NIH** Panel Reviewer (**11** panels):NIH BBBT-10 Bioengineering; NIH ZRG1 IVBH-B (02) M; NIH BBBT-X; NIH NIGMS ESI MIRA R35 Special Emphasis Panel; NIH NIGMS COBRE P20 Panel; NIH Common Fund Program the Cellular Senescence Network U02/U03 Panel; NIH SEP (ZRG1-GGG-M70) U01 Panel; NIH ZNS1 SRB-O (21) R24 Panel; NIH ZRG1 MGG-M (70) U01 Panel; NIH NCI IMAT panel; NIH Small Business: Cell and Molecular Biology ZRG1 MCST-G (15)
2020-present	Editorial Board Member, Pharmaceutics
2019-present	Advisory Board Member, Royal Society of Chemistry Lab on Chip
2018	Invited Discussion Panelist, NIH Entrepreneurship Training Program
2018	Invited Discussion Panelist, NIH NCI IMAT program PI Meeting
2017	Invited Discussion Panelist, NIH-NSF National Nanotechnology Signature Initiative Workshop
2017-present	Chair of Sponsorship Committee, Poster Award Committee, MicroTAS annual meeting
2017-present	Session Chair, SCIX 2017 & 2018 annual meeting; AIChE 2017 annual meeting; ASME MSEC2017 annual meeting; AAPS 2020 and 2021 annual meeting
2017-present	**NSF** Panel Reviewer (**3** panels): CMMI NanoManufacturing, **NSF** SBIR program
2017-present	**USDA** Panel Reviewer (**4** panels): Nanotechnology Program
2017-2020	Vice Chair, ITSC-230 committee, ASABE Biosensor program
2016-2019	Councilor, The American Electrophoresis Society (AES)
2016-present	**DOD** Review (**12** panels): COVID-19 therapeutics; LCRP Therapeutics; Treatment and Resistance Panel; BCRP Detection, Diagnosis and Prognosis; BCRP Clinical and Experimental Therapeutics Panel; BCRP Nanotechnology;DMRDP Wound and Injury

2015-present *Ad hoc* reviewer: Health Research for Oak Ridge Associated Universities, Florida Department of Health, The Swiss National Science Foundation (SNSF); Longer Life Foundation; Army Research Office; ETH Zurich Research Commission

Honors

2023 UF Innovator
2018, 2019, 2021 Outstanding Reviewers for Lab on Chip, Royal Society of Chemistry
2020 NIH NCI SBIR program featured female entrepreneur
2020 KU featured undergraduate mentor
2019 NIH Maximizing Investigator's Research Award for Early-Stage Investigators (NIH MIRA ESI)
2019 LOC Emerging Investigator, Royal Society of Chemistry
2019 Young Investigator Speaker, 2019 Gordon Research Conference (Physics and Chemistry of Microfluidics)
2018 Reader Choice Award, Society for Laboratory Automation and Screening
2018 KU New Faculty General Research Award
2017 KSU New Faculty Award
2016 Johnson Cancer Research Center Travel Award for NIH-IEEE Strategic Conference
2016 KSU "LAB" Business Innovation
2015 KSU Academic Excellence Award
2015 Ingenuity Central Kansas Innovator
2014 NSF CAREER Workshop Travel Award, NSF
2013 University of Kansas Medical Center Auxiliary Award
2011 NSF ADVANCE Future Faculty Workshop Travel Award
2011 CASSS Travel Award for the 26th International Symposium on MicroScale Bioseparations
2008 Final list, California Institute for Quantitative Bioscience (QB3) Distinguished Fellow The University of California, Berkeley, USA
2007 Mary Louise Imrie Graduate Student Award, University of Alberta, Canada

Selected Awards from Mentored Students

2024 Zachary Greenberg, UF Health Cancer Center Predoctoral Award
2023 Brian Diaz, The GMiS STEM Scholarship
2023 Zachary Greenberg, UF Pharmacy Ronald J and Sally G. Brenner Fellowship
2023 Xiaoshu Pan, PhRMA Foundation Postdoc award
2023 Nina Erwin, The International Society of Extracellular Vesicles (ISEV) Scholarship
2023 Ana Dogan, NIH supplement summer scholarship
2023 Maria Serafim, UF Health Cancer Center Research Day Best Poster Presentation
2022 Maria Serafim, UF NanoDay Best Poster Presentation
2022 Zachary Greenberg, Gordon Research Seminar (GRS) and Gordon Research Conference (GRC) in Extracellular Vesicles Oral Speakers
2022 Nina Erwin, Gordon Research Seminar (GRS) in Extracellular Vesicles Discussion Leader
2022 Zachary Greenberg, Carl Storm Underrepresented Minority Fellowship from Gordon Research Conference
2022 Zachary Greenberg, NanoDDS URM fellowship
2022 Zachary Greenberg, AAPS 2022 annual meeting Best Abstract Award
2022 Zachary Greenberg, AAPS 2022 annual meeting Best Poster Award
2022 Rachell Hawkes, UF Undergraduate Student Travel Award
2022 Zachary Greenberg, AAPS 2022 annual meeting Merck Travel Award
2022 Nina Erwin, UF College of Pharmacy Spiegel Scholar
2022 Nina Erwin, NSF Graduate Research Fellowship Honorable Mention
2022 Nina Erwin, UF COP 35th Annual Research Showcase Oral Presentation Winner
2022 Samantha Ali, UF COP Grinter Scholar
2022 Claire Roffi, Maria Serafim, UF Undergraduate Research Fellow Scholars
2022 Jillian Walker, PharmD student Charlotte Liberty Scholarship
2021 Rachell Hawkes, Lauren Andrews, Claire Roffi, UF Emerging Scholars
2021 Zachary Greenberg, NIH Diversity supplement scholarship
2021 Lauren Andrews, UF Undergraduate Student Travel Award
2021 Zachary Greenberg, AAPS 2021 annual meeting Best Poster Award

2021 Samantha Ali, UF Graduate Student Travel Award
2021 Zachary Greenberg, AAPS 2021 annual meeting Best Abstract Award
2021 Natalia Fernandez, UF Undergraduate Research Fellow
2020 Shaobo Ruan, Kansas INBRE Postdoc Award
2020 Nicole D'Souza, Kansas Research Day Undergraduate Research Award for meeting State SenatorNicole
2020 D'Souza, CPE undergraduate student, Poster Award, Kansas INBRE Annual Symposium
2019 Peyton Panovich, CPE undergraduate, KU School of Engineering Undergraduate Research Fellow
2019 Yvette Von Loh, REU student, Poster Award (the 3rd place), the AIChE Annual Meeting
2019 Bryce Stottlemire, BioE PhD student, Best Poster Award, 2019 Midwest 3D Printing Symposium

PUBLICATIONS

Peer-reviewed Journal Publications:

Google Scholar: MEI HE

All Citations: 3319, H-index: 23; i10-index: 30

Impact Factors obtained from journal websites; Citation information from Google Scholar.
Key: g = Graduate student, u= Undergraduate student, p = Post-doc, r = Residency fellow, and & = Faculty collaborator.

1. Welsh JA, Goberdhan DCI, O'Driscoll L, et al. Minimal information for studies of extracellular vesicles (MISEV2023): from basic to advanced approaches, *Journal of Extracellular Vesicles*, 2024, Accepted.
2. Xiaoshu Pan (p), Yanjun Li (&), Peixin Huang (p), Hinrich Staecker (&), **Mei He***, Extracellular Vesicles for Developing Targeted Hearing Loss Therapy, *Journal of Controlled Release*, 2023, accepted. Impact Factor: 10.8.
3. Zachary Greenberg (g), Kiley Graim (&), **Mei He***, Towards artificial intelligence-enabled extracellular vesicle precision drug delivery, *Advanced Drug Delivery Reviews*, 2023, 199, 114974. Impact Factor: 16.1 (PMID: 37356623)
4. Yufeng Xiao (p), Seth Hale (g), Nikee Awasthee (g), Chengcheng Meng (g), Xuan Zhang (g), Yi Liu (g), Haocheng Ding (g), Zhiguang Huo (g), Dongwen Lv (g), Weizhou Zhang (&), **Mei He**, Guangrong Zheng (&), Daiqing Liao (&), HDAC3 and HDAC8 PROTAC dual degrader reveals roles of histone acetylation in gene regulation, *Cell Chemical Biology*, 2023, 30, 1–15. Impact Factor: 8.6 (PMID: 37572669)
5. Shaobo Ruan (p), Wellington J (g). Jr Rody (g), Shivani S. Patel (g), Lina I. Hammadi (g), Macey L. Martin (g), Lorraine P. de Faria (&), George Daaboul (&), Leif S. Anderson (&), **Mei He***, L. Shannon Holliday* (&), Receptor activator of nuclear factor-kappa B is enriched in CD9-positive extracellular vesicles released by osteoclasts, *Extracellular Vesicles and Circulating Nucleic Acids*, 2023;4:518-529. (PMID: 37936884)
6. Shaobo Ruan(p), Nina Erwin(g), and **Mei He***. Light-induced high-efficient cellular production of immune functional extracellular vesicles. 2022. *Journal of Extracellular Vesicles.* 11, e12194. Impact Factor: 25.8
7. Shaobo Ruan(p), Yuanye Huang(&), **Mei He**, Huile Gao(&), Advanced Biomaterials for Cell-Specific Modulation and Restore of Cancer Immunotherapy, *Advanced Science*, 2022, 2200027. Impact Factor: 16.8
8. Nan He(p), Sirisha Thippabhotla(g), Cuncong Zhong(&), Zachary Greenberg(g), Liang Xu(&), Ziyan Pessetto(&), Andrew Godwin(&), Yong Zeng(&), and **Me He***. Nano Pom-poms Prepared Exosomes enable Highly Specific Cancer Biomarker Detection. 2022. *Nature Communications Biology.* 2022, 5, 660. Impact Factor: 6.27
9. Nina Erwin(g), Maria Fernanda Serafim(u), **M. He***, Enhancing the Cellular Production of Extracellular Vesicles for Developing Therapeutic Applications, *Pharmaceutical Research*, 2022, 11, 1-21. Impact Factor: 4.2
10. Jillian Walker(g), Padraic O'Malley, **M. He*,** Applications of Exosomes in Diagnosing Muscle Invasive Bladder Cancer, *Pharmaceutics*, 2022, 14, 2027. Impact Factor: 6.3
11. Shaobo Ruan(p), Zachary Greenberg(g), Xiaoshu Pan(p), Pei Zhuang(p), Nina Erwin(g), and **Mei He***. Extracellular Vesicles as an Advanced Delivery Biomaterial for Precision Cancer Immunotherapy. 2021. *Advanced Healthcare Materials.* 2100650. Impact Factor: 9.93
12. Rebekah Omarkhail Elliott(u), and **Mei He***. Unlocking the Power of Exosomes for Crossing Biological Barriers in Drug Delivery. 2021. *Pharmaceutics.* 13: 122. Impact Factor: 6.4
13. Bryce Stottlemire(g), Jonathan Miller(g), Jonathan Withlow(g), Sebastian Huayamares(g), Praj Dhar(&), **Mei He**,

and Cory Berkland*(&).Remote Sensing and Remote Actuation via Silicone–Magnetic Nanorod Composites. 2021. *Advanced Materials Technologies.* Impact Factor: 7.85

14. Bryce Stottlemire(g), Aparna R. Chakravarti(g), Jonathan W. Whitlow(g), Cory Berkland(&), and **Mei He***. Remote-controlled 3D Porous Ferromagnetic Interface towards High- throughput Dynamic 3D Cell Culture. 2021. *ACS Biomaterials Science & Engineering.* 7,9, 4535–4544. Impact Factor: 4.75
    - *Featured Cover Art*
15. Pei Zhuang(p), Zachary Greenberg(g), and **Mei He***. Biologically Enhanced Starch Bio-ink for Promoting 3D Cell Growth. 2021. *Advanced Materials Technologies.* Impact Factor: 7.85
16. Suyeon Hong(g), Shaobo Ruan(p), Zachary Greenberg(g), **Mei He**, and Jodi McGill(&).Development of Surface Engineered Antigenic Exosomes as Vaccines for Respiratory Syncytial Virus. 2021. *Scientific Reports.* 11, 21358. Impact Factor: 4.5
17. Pei Zhuang(p), Suiching Phung(p), Athanasia Warnecke(r), Alexandra Aramabula(r), Madeleine Peter(r), **Mei He**, and Hinrich Staecker(&). Isolation of sensory hair cell specific exosomes in human perilymph. 2021. *Neuroscience Letters.* 136282. Impact Factor: 2.18
18. Pei Zhuang(p), Yi-Hua Chiang(g), Maria Serafim Fernanda(u), and **Mei He***. Using Spheroids as building blocks towards 3D bioprinting of tumor microenvironment. 2021. *International Journal of Bioprinting.* 7(4):444. Impact Factor: 6.64
19. S. Hong(g), S. Ruan(p), P. Gamero Kubota(u), **Mei He**, and J.L. McGill(&). Immunogenic potency of engineered exosomes for prevention of respiratory syncytial virus. 2020. *The Journal of Immunology.* 204 (1 Supplement), 245.22-245.
20. S. Thippabhotla(g), C. Zhong(&), **M. He***, 3D cell culture stimulates the secretion of in vivo like extracellular vesicles, *Scientific Reports*, 2019, 9, 13012. Impact Factor: 4.5
    - *Top 100 Read Articles 2019*
21. Q. Zhu(p), M. Hamilton(g), B. Vasquez(u), **M. He***, 3D-printing enabled micro-assembly of microfluidic electroporation system for 3D tissue engineering, *Lab on a Chip*, 2019, 19, 2362-2372. Impact Factor: 6.9
    - *LOC Emerging Investigator by Royal Society of Chemistry*
22. P. Zhang(p), X. Zhou(g), **M. He**, Y. Shang(p), A. L. Tetlow(g), A. K. Godwin(&), Y. Zeng(&), Ultrasensitive detection of circulating exosomes with a 3D-nanopatterned microfluidic chip, *Nature Biomedical Engineering*, 2019, 3, 438-451. Impact Factor: 25.7
    - *Editorial Story, Clever Chip Designs for Diagnostics, Nature Biomedical Engineering, 2019, 3, 417.*
    - *Featured News: Enhanced Detection of Tumor-secreted vesicles, Nature Biomedical Engineering, 2019, 4, 421.*
23. Z. Zhao(g), J. McGill(&), P. Kubota(u), **M. He***, Microfluidic On-demand Engineering of Exosomes towards Cancer Immunotherapy, *Lab on a Chip*, 2019, 19, 1877 – 1886. Impact Factor: 6.9
24. Q. Zhu, M. Heon, Z. Zhao, **M. He***, Microfluidic Engineering of Exosomes: Editing Cellular Messages for Precision Therapeutics. *Lab on a Chip*, 2018, 18, 1690-1703. Impact Factor: 6.9
    - *Cover Story*
25. K. Plevniak, M. Campbell, T. Myers (Undergrad), A. Hodges, **M. He*,** 3D Printed Auto-mixing Chip Enables Rapid Smartphone Diagnosis of Anemia, *Biomicrofluidics*, 2016, 10, 054113. Impact Factor: 2.7
    - *Most Read Article in Biomicrofluidics*
    - *ScienceDaily News, K-State Today News*
    - *3D Industry News and 3D system featured case study*
26. **M. He**, Y. Zeng. Microfluidic Exosome Analysis towards Liquid Biopsy for Cancer, *Journal of Laboratory Automation*, 2016, 21, 599-608. Impact Factor: 2.4
    - *SLAS Reader Choice Award*
27. P. Zhang, **M. He**, Y. Zeng. Ultrasensitive microfluidic analysis of circulating exosomes using a nanostructured graphene oxide/polydopamine coating, *Lab on a Chip*, 2016, 16, 3033-3042. Impact Factor: 6.9

- *LOC Emerging Investigator*

28. Z. Zhao, Y. Yang, Y. Zeng, **M. He***. A Microfluidic ExoSearch Chip for Multiplexed Exosome Detection Towards Blood-based Ovarian Cancer Diagnosis. *Lab on a Chip*, 2016, 16, 489-496. Impact Factor: 6.9.
    - *The Most Download Articles of 2016*
    - *Featured as the inside Cover Story*
29. K. Plevniak, **M. He***. Microfluidic Technology: the next-generation drug discovery tool. *Drug Target Review*. 2015, 2 (3): 18-20.
30. Z. Zhao, **M. He***. Microfluidic Technologies: Lifting the Veil of Exosomes. *MOJ Proteomics Bioinformatics*, 2014, 1(3): 00014.
31. **M. He,** J. Crow, M. Roth, Y. Zeng, A. K. Godwin. Integrated immunoisolation and protein analysis of circulating exosomes using microfluidic technology. *Lab on a Chip*, 2014, 14, 3773-3780. Impact Factor: 6.9.
    - *Royal Chemistry Society Lab On a Chip 2014 Most Accessed Article*
    - *Top-scoring Altmetrics article published in Lab on a Chip (August-October 2014)*
    - *ScienceDialy: Feature Research*
    - *Media Coverage: Exosome RNA Research and Industry News/ dailynewsen.com/ cancerlive.net/ Health News from HealthCanal.com/ Nano Werk/ phys.org news/ Science Island News/ internetmedicine.com*
    - *KU Cancer Center News and Research Highlights: Clinical applications of exosomes*
    - *Labmedica Daily Clinical Lab News: Circulating Exosomes Analysis Uses Microfluidic Technology*
32. **M. He**, Y. Zeng, A. Jemere, D. J .Harrison. Tunable thick polymer coatings for on-chip electrophoretic protein and peptide separation. *Journal of Chromatography A*, 2012, 1241, 112-116. Impact Factor: 4.8
33. D. Kim, K. Karns, S. Q Tia, **M. He**, A. E Herr. Electrostatic protein immobilization using charged polyacrylamide gels and cationic detergent microfluidic Western blotting. *Analytical Chemistry*, 2012, 84, 2533-2540. Impact Factor: 6.98
34. **M. He**, J Novak, B. A. Julian, A. E. Herr. Membrane-assisted online renaturation for automated microfluidic lectin blotting. *Journal of the American Chemical Society*, 2011, 133, 19610-19613. Impact Factor: 16.3
35. S. Q. Tia, **M. He**, D. Kim, A. E. Herr. Multi-analyte on-chip native western blotting. *Analytical Chemistry*, 2011, 83, 3581–3588. Impact Factor: 6.98
36. **M. He,** A. E. Herr. Automated microfluidic protein immunoblotting. *Nature Protocols*, 2010, 5, 1844-1856. Impact Factor: 13.5
37. **M. He,** A. E. Herr. Polyacrylamide gel photopatterning enables automated protein immunoblotting in a two-dimensional microdevice. *Journal of the American Chemical Society*, 2010, 132, 2512-2513. Impact Factor: 16.3
    - *JACS front web page highlights*.
38. **M. He,** J. Bao, Y. Zeng, D. J. Harrison. Parameters governing reproducibility of flow properties of porous monoliths photopatterned within microfluidic channels. *Electrophoresis*, 2010, 31, 2422-2428. Impact Factor: 3.5
39. **M. He**, A. E. Herr. Microfluidic polyacrylamide gel electrophoresis with in-situ immunoblotting for native protein analysis. *Analytical Chemistry*, 2009, 81, 8177-8184. Impact Factor: 6.98
40. **M. He**, Y. Zeng, X. Sun, D. J. Harrison. Confinement effects on the morphology of photopatterned porous polymer monoliths for capillary and microchip electrophoresis of proteins. *Electrophoresis*, 2008, 29, 2980- 2986. Impact Factor: 3.5
41. Y. Zeng, **M. He**, D. J. Harrison. Microfluidic Self-Patterning of Large-Scale Crystalline Nanoarrays for High-Throughput Continuous DNA Fractionation. *Angewandte Chemie International Edition*, 2008, 47, 6388-6391. Impact Factor: 15.4
    - *Separationsnow 2010, May, News- Another brick in the wall*
    - *phyorg.com News*

Books and Chapters:

1. S. Phung, Q. Zhu, K. Plevniak, **M. He***, "3D Printed Microfluidics and Applications", Microfluidic Devices for

Biomedical Applications, *Elsevier Press*, 2021, 659-679.

2. P. Hochendoner, Z. Zhao, **M. He***, "Diagnostic Potential of Tumor Exosomes", Diagnostic and Therapeutic Applications of Exosomes in Cancer, *Elsevier Press*, 2018, 161-173.
3. **M. He**, A. Godwin, Y. Zeng, "Microfluidic Multistage Integration for Analysis of Circulating Exosomes", Microfluidic Methods for Molecular Biology, *Springer Publishing*, 2016, 113-139.
4. **M. He**, "High-throughput Microfluidic Proteomics", Lambert Academic Publishing, 2011, ISBN 3-844-38028-0