KRISTY MARIE AINSLIE
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DIVERSITY STATEMENT

Diversity in the workplace enhances us all in our ability to learn, teach, and communicate. For me, a diverse environment incorporates individuals regardless of race, color, religion, national origin, gender, gender identity, sexual orientation, disability, age, and/or economic background. As a cis female engineer in academia, I have experienced barriers first-hand, but I understand that many individuals have encountered considerably more challenges. As a professor and chair I strive to be a more inclusive leader by mentoring diverse individuals, maintaining an inclusive environment, being a LGBTQ+ ally, and seeking out opportunities to overcome, learn and inform about bias. I am aware that academia has an inherent bias that must be challenged and overcome to bring about a more inclusive environment.

EDUCATION

2002-2005 Pennsylvania State University PhD Chemical Engineering
Application of Nanobiomaterials for Biofouling Attenuation Advisor: Michael V. Pishko

2000-2002 Pennsylvania State University MS Chemical Engineering
Effect of Shear Stress on the Contraction of Smooth Muscle Cells Advisor: John M. Tarbell

1995-1999 Michigan State University BS Chemical Engineering

PROFESSIONAL EXPERIENCE

Jul 2021 -	Chair, Division of Pharmacoengineering and Molecular Pharmaceutics
Jul 2021 -	Fred Eshelman Distinguished Professor, University of North Carolina
Jul 2019 - Jul 2021	Vice Chair, Division of Pharmacoengineering and Molecular Pharmaceutics
Apr 2019 - Jul 2021	Professor, University of North Carolina
Jun 2018 -	Adjunct, School of Medicine, Department of Microbiology and Immunology
Aug 2015 -	Affiliated Member, North Carolina State University Center for Comparative Medicine and Translational Research, Raleigh, NC
Sept 2014-	Affiliate, School of Medicine, Department of Biomedical Engineering NC State/UNC
Jun 2014-Apr 2019	Associate Professor, University of North Carolina School of Pharmacy, Division of Pharmacoengineering and Molecular Pharmaceutics
Jul 2009-Jun 2014	Assistant Professor, The Ohio State University College of Pharmacy, Division of Pharmaceutics

Aug 2006-Jul 2009 Post Doctoral Fellow, University of California, San Francisco Advisor: Tejal A. Desai

- Application of polymeric microdevices for oral cancer therapy.
- Characterization of immunological responses to nanomaterials.
- Development of materials including polymeric microdevices, hydrogels, and nanowires.

Mar-Aug 2006 Contractor, Naval Research Laboratory Advisor: Lloyd J. Whitman

- Performed DNA based biotoxin assays.
- Developed T-cell based biosensor for HIV/AIDS monitoring.
- Aided in the optimization of surface chemistry on a silicon nitride surface.

2005-2006 Post Doctoral Researcher, Protiveris Advisor: Robert Cain

- Optimized surface chemistry on nanostructured material surface.
- Performed biochemical assays on nanomechanical cantilever array system.
- The investors reduced the funding for the start-up in January of 2006.

2003-2005 Graduate Assistant PhD, Pennsylvania State University Advisor: Michael M. Pishko

- Characterized cell and protein attachment to nanomaterials.
- Applied basic surface chemistry knowledge.
- Gained experience in biosensor technology.

2000-2002 Graduate Assistant MS, Pennsylvania State University Advisor: John M. Tarbell

- Examined calcium ion dependent cellular pathways in vascular smooth muscle cells.
- Imaged calcium ions in real time and cell surface proteins through fluorescent and pharmacological methods.
- Explored topics in fluid flow dynamics as they relate to shear stress.

1999– 2000 Staff Engineer, Malcolm Pirnie, East Lansing, MI

- Lansing office Information Technology leader.
- Collected environmental soil and water samples.

HONORS

2023 Sato Memorial International Award Recipient
2022 Induction Controlled Release Society Fellows
2021 Induction American Institute for Medical and Biological Engineering (AIMBE) Fellows
2012 OSU Council of Graduate Students James M. Siddens Distinguished Faculty Advising Award
2012 Nominated for Ohio State University Distinguished Undergraduate Research Mentor Award
2009 Controlled Release Society Outstanding Oral Drug Delivery Award
2007 Controlled Release Society-Capsugel Post-Doc Award for Innovative Aspects of Oral Drug Delivery & Absorption
2005 Walter R. and Aura Lee Supina Graduate Fellowship in Chemical Engineering
2000 The Pennsylvania State University Life Science Consortium Graduate Fellowship
1999 Commencement Speaker for Michigan State University College of Engineering Graduation Ceremony

SERVICE TO JOURNAL

2023- Editorial board Journal of Controlled Release, International Journal of Pharmaceutics
2023-24 Guest Editor: Special issue of Journal of Controlled Release for Leaf Huang
2021 Guest Editor: Special issue The AAPS Journal for Rising Stars Issue

BIBLIOGRAPHY AND PRODUCTS OF SCHOLARSHIP

BOOKS & CHAPTERS

1. Stiepel RT, Woodring RN, Middleton DD, Bachelder EM, Ainslie KM. Translational Landscape of Immuno-Engineered Technologies. In: Fundamentals of Immune Engineering. Submitted 2022.
2. Graham-Gurysh EG, Carpenter BW, Beck WA, Varma DM, Vincent BG, Bachelder EM, Ainslie KM. Delivery Strategies for Cancer Vaccines and Immunoadjuvants. In: Mansoor Amiji M, editor. Delivery Strategies in Immuno-Oncology: Elsevier; 2021
3. Gallovic MD, Bachelder EM, Ainslie KM. Immunostimulatory Inulin Adjuvants in Prophylactic Vaccines Against Pathogens. In: Davis CR, editor. Inulin: Chemical Properties, Uses and Health Benefits: Nova Science Publishers; 2017.
4. Peine, KJ; Chen, N; Bachelder EM; Ainslie KM. Handbook of Research on Novel Approaches for Drug Delivery (Chapter: Drug Delivery Strategies for Tolerogenic Therapy for Autoimmune Diseases in an Antigen-Specific Manner) IgI Global, New York (2017).
5. Ainslie, KM; Desai, TA. Long Acting Injections and Implants (Chapter: Micro-electric technologies) Springer, New York, New York (2012).
6. Ayala, P; Bernards, DA; Thakar, RT; Ainslie, KM; Desai, TA. *The Handbook of Enabling Technologies for Regenerative Medicine* (Chapter: Fabrication of cell mircrointegrated tissues) CRC/Taylor and Francis, New York (2010).
7. Ainslie, KM; Thakar, RT; Bernards, DA; Desai, TA. *Nanotechnology in Tissue Engineering and Regenerative Medicine* (Chapter: Inflammation Response to Implanted Nanostructured Materials) CRC/Taylor and Francis, New York (2010).
8. Ainslie, KM; Thakar, RT; Bernards, DA; Desai, TA. *Biological Interactions on Materials Surfaces: Understanding and Controlling Protein, Cell and Tissue Responses* (Chapter: Inflammation Response to Implanted Nanostructured Materials) Elsevier, New York (2009).

PEER REVIEWED ARTICLES (H-INDEX 36)

1. Pena ES, Batty CJ, Hendy DA, Shuangshuang Y, Ontiveros-Padilla L, Stiepel RT, Ting JPY, Ainslie KM, Bachelder EM. Comparative Study of Acetalated-Dextran Microparticle Fabrication Methods for a Clinically Translatable

Subunit-based Influenza Vaccine. *Submitted IJP*

2. Williamson GL, Bachelder EM, Ainslie KM. Clinical and pre-clinical methods of heat-stabilization of human vaccines. *Submitted Mol Pharm*.
3. Hendy Da, Ma Y, Dixon TA, Carlock MA, Ross TM, Bachelder EM, Ainslie KM, Fenton OS. Polymeric cGAMP Microparticles Affect the Immunogenicity of a Broadly Active Influenza mRNA Lipid Nanoparticle Vaccine. *Submitted JCR.*
4. Hendy DA, Pena ES, Batty CJ, Ontiveros-Padilla L, III JARoque, Dixon TA, Middleton DD, Carlock MA, Ross TM, Bachelder EM, Ainslie KM. COBRA Hemagglutinin and Cgamp Loaded Ace-Dex Microparticles Provide a Broadly Active and Shelf-Stable Influenza Vaccine Platform. Adv. Therap. 2023, 2300273.
5. Hendy DA, Pena ES, Ontiveros-Padilla L, Dixon TA, Middleton DD, Williamson GL, Lukesh NR, Simpson SS, Stiepel RT, Islam MJ, Carlock MA, Ross TM, Bachelder EM, Ainslie KM. Immunogenicity of an adjuvanted broadly active influenza vaccine in immunocompromised and diverse populations. Bioeng Transl Med. 2023;e10634.
6. Hendy DA, Lifshits LM, Batty CJ, Carlock MA, Ross TM, Mousa JJ, Bachelder EM, Ainslie KM. Zinc Carnosine Metal-Organic Coordination Polymer as a Potent Broadly Active Influenza Vaccine Platform with In Vitro Shelf-Stability. Mol Pharm. 2023;20(9):4687-97. Epub 20230821.
7. Hendy DA, Johnson-Weaver BT, Batty CJ, Bachelder EM, Abraham SN, Staats HF, Ainslie KM. Delivery of small molecule mast cell activators for West Nile Virus vaccination using acetalated dextran microparticles. Int J Pharm. 2023;634:122658. Epub 20230130.
8. Stiepel RT, Duggan E, Batty CJ, Ainslie KM. Micro and nanotechnologies: The little formulations that could. Bioeng Transl Med. 2023;8(2):e10421. Epub 20221018.
9. Hendy DA, Haven A, Bachelder EM, Ainslie KM. Preclinical developments in the delivery of protein antigens for vaccination. Expert Opin Drug Deliv. 2023;20(3):367-84. Epub 20230210.
10. Pena ES, Lifshits LM, Eckshtain-Levi M, Bachelder EM, Ainslie KM. Metal-organic coordination polymers for delivery of immunomodulatory agents, and infectious disease and cancer vaccines. Wiley Interdiscip Rev Nanomed Nanobiotechnol. 2023;15(4):e1877. Epub 20230111.
11. Batty CJ, Lifshits LM, Hendy DA, Eckshtain-Levi M, Ontiveros-Padilla LA, Carlock MA, Ross TM, Bachelder EM, Ainslie KM. Vinyl Sulfone-functionalized Acetalated Dextran Microparticles as a Subunit Broadly Acting Influenza Vaccine. AAPS J. 2023;25(1):22. Epub 20230131.
12. Rose Lukesh N, Middleton DD, Bachelder EM, Ainslie KM. Particle-Based therapies for antigen specific treatment of type 1 diabetes. Int J Pharm. 2023;631:122500. Epub 20221215.
13. Batty CJ, Amouzougan EA, M AC, Ross TM, Bachelder EM, Ainslie KM. Sustained delivery of CpG oligodeoxynucleotide by acetalated dextran microparticles augments effector response to Computationally Optimized Broadly Reactive Antigen (COBRA) influenza hemagglutinin. Int J Pharm. 2023;630:122429. Epub 20221125.
14. Ainslie KM. 9 to 5 in Academia: Addressing Barriers for Women. Mol Pharm. 2023;20(1):1-3. Epub 20221111.
15. Jasiewicz NE, Mei KC, Oh HM, Chansoria P, Hendy DA, Bonacquisti EE, Bachelder EM, Ainslie KM, Yin H, Qian L, Jensen BC, Nguyen J. ZipperCells Exhibit Enhanced Accumulation and Retention at the Site of Myocardial Infarction. Adv Healthc Mater. 2023;12(4):e2201094. Epub 20221203.
16. Mei KC, Stiepel RT, Bonacquisti E, Jasiewicz NE, Chaudhari AP, Tiwade PB, Bachelder EM, Ainslie KM, Fenton OS, Nguyen J. Single-tailed heterocyclic carboxamide lipids for macrophage immune-modulation. Biomater Sci. 2023;11(8):2693-8. Epub 20230411.
17. Ontiveros-Padilla L, Batty CJ, Hendy DA, Pena ES, Roque JA, 3rd, Stiepel RT, Carlock MA, Simpson SR, Ross TM, Abraham SN, Staats HF, Bachelder EM, Ainslie KM. Development of a broadly active influenza intranasal vaccine adjuvanted with self-assembled particles composed of mastoparan-7 and CpG. Front Immunol. 2023;14:1103765. Epub 20230324.
18. Batty CJ, Amouzougan EA, Moore KM, Pena ES, Bachelder EM, Ainslie KM. Humoral Response to Acetalated Dextran M2e Vaccine is Enhanced by Antigen Surface Conjugation. Bioconjugate Chem. 2023. *ACS Editors' Choice*
19. Woodring RN, Gurysh EG, Bachelder EM, Ainslie KM. Drug Delivery Systems for Localized Cancer Combination Therapy. ACS Appl Bio Mater. 2023;6(3):934-50. Epub 2023/02/16. (Invited)
20. McLaughlin JE, Bachelder JM, Ainslie KM. Distribution of Female and Male First and Last Authorship across Drug Delivery Related Journals with Respect to Year and Journal Impact Factor. Mol Pharm. 2023. Epub 2023/06/23. *ACS Editors' Choice*
21. Watkins-Schulz R, Batty CJ, Stiepel RT, Schmidt ME, Sandor AM, Chou WC, Ainslie KM, Bachelder EM, Ting JP. Microparticle Delivery of a STING Agonist Enables Indirect Activation of NK Cells by Antigen-Presenting Cells. Mol Pharm. 2022;19(9):3125-38. Epub 2022/08/02.

22. McNamara N, Saunders E, Varghese S, Zheng R, Simpson K, Varma DM, Johnson MM, Hasan Zahid MS, Bachelder EM, Ainslie KM, No JH, Koh D, Shum D, Das N, Patra B, Roy J, Talukdar A, Ganguly D, McConville M, Baell J. Hit-to-lead optimization of novel phenyl imidazole carboxamides that are active against Leishmania donovani. Eur J Med Chem. 2022;240:114577. Epub 2022/07/11.
23. Stiepel RT, Pena ES, Ehrenzeller SA, Gallovic MD, Lifshits LM, Genito CJ, Bachelder EM, Ainslie KM. A predictive mechanistic model of drug release from surface eroding polymeric nanoparticles. J Control Release. 2022;351:883-95. Epub 2022/10/09.
24. Eckshtain-Levi M, Batty CJ, Lifshits LM, McCammitt B, Moore KM, Amouzougan EA, Stiepel RT, Duggan E, Ross TM, Bachelder EM, Ainslie KM. Metal-Organic Coordination Polymer for Delivery of a Subunit Broadly Acting Influenza Vaccine. ACS Appl Mater Interfaces. 2022;14(25):28548-58. Epub 2022/06/16.
25. Batty CJ, Gallovic MD, Williams J, Ross TM, Bachelder EM, Ainslie KM. Multiplexed electrospray enables high throughput production of cGAMP microparticles to serve as an adjuvant for a broadly acting influenza vaccine. Int J Pharm. 2022;622:121839. Epub 2022/05/28.
26. Gallovic MD, Junkins RD, Sandor AM, Pena ES, Sample CJ, Mason AK, Arwood LC, Sahm RA, Bachelder EM, Ainslie KM, Sempowski GD, Ting JP. STING agonist-containing microparticles improve seasonal influenza vaccine efficacy and durability in ferrets over standard adjuvant. J Control Release. 2022;347:356-68. Epub 2022/05/16.
27. Hendy DA, Amouzougan EA, Young IC, Bachelder EM, Ainslie KM. Nano/microparticle Formulations for Universal Influenza Vaccines. AAPS J. 2022;24(1):24. Epub 2022/01/09.
28. Varma DM, Batty CJ, Stiepel RT, Graham-Gurysh EG, Roque JA, 3rd, Pena ES, Hasan Zahid MS, Qiu K, Anselmo A, Hill DB, Ross TM, Bachelder EM, Ainslie KM. Development of an Intranasal Gel for the Delivery of a Broadly Acting Subunit Influenza Vaccine. ACS Biomater Sci Eng. 2022;8(4):1573-82. Epub 2022/03/31.
29. Salem AK, Nguyen J, Ainslie KM. The AAPS Journal Theme Issue: Rising Stars in Drug Delivery and Novel Carriers. AAPS J. 2022;24(3):51. Epub 2022/04/07.
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31. Johnson BM, Uchimura T, Gallovic MD, Thamilarasan M, Chou WC, Gibson SA, Deng M, Tam JW, Batty CJ, Williams J, Matsushima GK, Bachelder EM, Ainslie KM, Markovic-Plese S, Ting JP. STING Agonist Mitigates Experimental Autoimmune Encephalomyelitis by Stimulating Type I IFN-Dependent and -Independent Immune-Regulatory Pathways. J Immunol. 2021;206(9):2015-28. Epub 2021/04/07.
32. Genito CJ, Batty CJ, Bachelder EM, Ainslie KM. Considerations for Size, Surface Charge, Polymer Degradation, Co-Delivery, and Manufacturability in the Development of Polymeric Particle Vaccines for Infectious Diseases. Adv Nanobiomed Res. 2021;1(3):2000041. Epub 2021/03/09.
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34. Batty CJ, Bachelder EM, Ainslie KM. Historical Perspective of Clinical Nano and Microparticle Formulations for Delivery of Therapeutics. Trends Mol Med. 2021;27(6):516-9. Epub 2021/04/28.
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36. Batty CJ, Heise MT, Bachelder EM, Ainslie KM. Vaccine formulations in clinical development for the prevention of severe acute respiratory syndrome coronavirus 2 infection. Adv Drug Deliv Rev. 2021;169:168-89. Epub 2020/12/15.
37. Pena ES, Graham-Gurysh EG, Bachelder EM, Ainslie KM. Design of Biopolymer-Based Interstitial Therapies for the Treatment of Glioblastoma. Int J Mol Sci. 2021;22(23). Epub 2021/12/11.
38. Genito CJ, Eckshtain-Levi M, Piedra-Quintero ZL, Krovi SA, Kroboth A, Stiepel RT, Guerau-de-Arellano M, Bachelder EM, Ainslie KM. Dexamethasone and Fumaric Acid Ester Conjugate Synergistically Inhibits Inflammation and NF-kappaB in Macrophages. Bioconjug Chem. 2021;32(8):1629-40. Epub 2021/06/25.
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45. Graham-Gurysh EG, Moore KM, Schorzman AN, Lee T, Zamboni WC, Hingtgen SD, Bachelder EM, Ainslie KM. Tumor Responsive and Tunable Polymeric Platform for Optimized Delivery of Paclitaxel to Treat Glioblastoma. ACS Appl Mater Interfaces. 2020;12(17):19345-56. Epub 2020/04/08.
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47. Pradhan S, Moore KM, Ainslie KM, Yadavalli VK. Flexible, microstructured surfaces using chitin-derived biopolymers. J Mater Chem B. 2019;7(35):5328-35. Epub 2019/08/08.
48. Watkins-Schulz R, Tiet P, Gallovic MD, Junkins RD, Batty C, Bachelder EM, Ainslie KM, Ting JPY. A microparticle platform for STING-targeted immunotherapy enhances natural killer cell- and CD8(+) T cell-mediated anti-tumor immunity. Biomaterials. 2019;205:94-105. Epub 2019/03/26.
49. Steipel RT, Gallovic MD, Batty CJ, Bachelder EM, Ainslie KM. Electrospray for generation of drug delivery and vaccine particles applied in vitro and in vivo. Mater Sci Eng C Mater Biol Appl. 2019;105:110070. Epub 2019/09/25.
50. Zahid MSH, Johnson MM, Tokarski RJ, 2nd, Satoskar AR, Fuchs JR, Bachelder EM, Ainslie KM. Evaluation of synergy between host and pathogen-directed therapies against intracellular Leishmania donovani. Int J Parasitol Drugs Drug Resist. 2019;10:125-32. Epub 2019/09/08.
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NON-PEER REVIEWED ARTICLES

1. Pena ES, Bachelder EB, Ainslie KM. Acetalated Dextran for Enhanced Delivery of Subunit Vaccines. In: Patravale VB, editor. Nineteenth International e-Symposium: Advances in Technology & Business Potential of New Drug Delivery Systems; February; Online: Controlled Release Society Indian Chapter 2021.

INVITED TALKS

1. Ainslie KM. Chemotherapy and Immunotherapy Delivery with Acetalated Dextran Scaffolds. CRS Australian Chapter Meeting, Monash University December 2023.
2. Ainslie KM. Less of a shock than you think: Mast cell agonists in combination with traditional adjuvants to advance a subunit vaccine. Mechanism of Mixed Adjuvants Meeting, Rockville MD October 2023.
3. Ainslie KM. A Fade-Away Swish for Glioblastoma Treatment: Chemotherapy and Immunotherapy Delivery with Acetalated Dextran Scaffolds. Duke Biomedical Engineering Department, Durham NC September 2023.
4. Ainslie KM. A Fade-Away Swish for Glioblastoma Treatment: Chemotherapy and Immunotherapy Delivery with Acetalated Dextran Scaffolds. BMES, Seattle WA October 2023.
5. Ainslie KM. Metals and Peptides and Polymers, Oh My! Following the Yellow Brick Road Towards a Universal Influenza Vaccine. Pharmaceutical Society of Japan. Sapporo Japan March 2023.
6. Ainslie KM. Metals and Peptides and Polymers, Oh My! Following the Yellow Brick Road Towards a Universal Influenza Vaccine. Joint NC State/UNC Biomedical Engineering Department, Chapel Hill NC February 2023.
7. Ainslie KM. Metals and Peptides and Polymers, Oh My! Following the Yellow Brick Road Towards a Universal Influenza Vaccine. IMR Ohio State. Columbus OH April 2023.
8. Ainslie KM. Metals and Peptides and Polymers, Oh My! Following the Yellow Brick Road Towards a Universal Influenza Vaccine. FNano. Salt Lake City UT April 2023.
9. Ainslie KM. Women in Pharmaceutical Sciences. UNC GEO x CAPS Global Women in Pharmacy Event. Chapel Hill, NC Oct 2022.
10. Ainslie KM. Acetalated Dextran: A Spoonful of Sugar Helps the Medicine (and Vaccine) go down. Gordan Research Conference for Drug Carriers, West Dover, VT August 2022.
11. Ainslie KM. Acetalated Dextran: A Spoonful of Sugar Helps the Medicine (and Vaccine) go down. Terasaki Institute

for Biomedical Innovation, Los Angeles, CA August 2022.
12. Ainslie KM. Women in Pharmaceutical Sciences. WVU Rho Chi Bergy Lecture. Morgantown, WV Apr 2022.
13. Ainslie KM. Acetalated Dextran: A Spoonful of Sugar Helps the Medicine (and Vaccine) go down. Arizona State University, Tempe, AZ February 2022. *Virtual*
14. Ainslie KM. Acetalated Dextran: A Spoonful of Sugar Helps the Medicine (and Vaccine) go down. Virginia Commonwealth University, Richmond VA September 2021. *Virtual*
15. Ainslie KM. Acetalated Dextran: A Spoonful of Sugar Helps the Medicine (and Vaccine) go down. University of California, Davis Biomedical Engineering Department. Davis, CA April 2021. Virtual
16. Ainslie KM. Women in Pharmaceutical Sciences. UNC GEO x CAPS Global Women in Pharmacy Event. Chapel Hill, NC Nov 2021.
17. Ainslie KM. Acetalated Dextran: A Spoonful of Sugar Helps the Medicine (and Vaccine) go down. University of Miami Biomedical Nanotechnology Institute. Miami, FL March 2021. Virtual
18. Ainslie KM. Acetalated Dextran: A Spoonful of Sugar Helps the Medicine (and Vaccine) go down. Utah School of Pharmacy. Salt Lake City, UT Jan 2021. Virtual
19. Ainslie KM. Nanoparticle Formulations for Autoimmune Disease and Vaccinations. UNC Allergy and Immunology Grand Rounds. Oct 2020. Virtual
20. Ainslie KM. Acetalated Dextran: A Spoonful of Sugar Helps the Medicine (and Vaccine) go down. Rice Bioengineering. Houston, TX Sept 2020. Virtual
21. Ainslie KM. Acetalated Dextran Enhances Vaccine Delivery. AAPS. New Orleans, LA Nov 2020. Virtual
22. Ainslie KM. Drexel Immune Modulation and Engineering Symposium. Philadelphia, PA Nov 2020. Virtual
23. Ainslie KM. Acetalated Dextran: A Spoonful of Sugar Helps STING Agonists Go Down!. Innate Immune Stimulating Therapies Summit. Boston, MS July 2020. Virtual
24. Ainslie KM. Acetalated Dextran: A Spoonful of Sugar Helps the Medicine (and Vaccines) Go Down. University of Kentucky School of Pharmacy. Lexington, KY. Mar 2020.
25. Ainslie KM. Acetalated Dextran: A Spoonful of Sugar Helps the Medicine (and Vaccines) Go Down. BME 590: Advanced Drug Delivery. Raleigh NC, NC State. Apr 2020.
26. Ainslie KM. Acetalated Dextran: A Spoonful of Sugar Helps the Medicine (and Vaccine) go down. University of Sydney. Sydney AUS 2019.
27. Ainslie KM. Acetalated Dextran: A Spoonful of Sugar Helps the Medicine (and Vaccine) go down. SFB. Seattle, WA Apr 2019.
28. Ainslie KM. The Tunable Degradation of the Biodegradable Polymer Acetalated Dextran Results in Enhanced Efficacy of a Universal Flu Vaccine and Glioblastoma Chemotherapy. BMES. Philadelphia, PA 2019.
29. Ainslie KM. Acetalated Dextran: A Spoonful of Sugar Helps the Medicine (and Vaccine) go down. Duquesne University, School of Pharmacy. Pittsburgh, PA 2019.
30. Ainslie KM. Acetalated Dextran: A Spoonful of Sugar Helps the Medicine (and Vaccine) Go Down. NCSU Department of Chemical Engineering. Raleigh, NC, 2015.
31. Ainslie KM. Acetalated Dextran: A Spoonful of Sugar Helps the Medicine (and Vaccine) Go Down. UNC Molecular Pharmaceutics Division, Chapel Hill, NC, 2014.
32. Ainslie KM. Acetalated Dextran: A Spoonful of Sugar Helps the Medicine (and Vaccine) Go Down. University of Buffalo, Pharmaceutical Science, Buffalo, NY, 2014.
33. Ainslie KM. Novel Polymeric Carriers for Immune Modulation and Drug Delivery. Virginia Tech Biomedical Engineering Department, Blacksburg, VA, 2012.
34. Ainslie KM. Acetalated Dextran: A spoonful of sugar helps the medicine (and vaccines) go down Center for Microbial Interface Biology, Columbus, OH, 2012
35. Ainslie KM. Novel Polymeric Carriers for Immune Modulation and Drug Delivery. OSU Biomedical Engineering Seminar, Columbus, OH, 2012.
36. Ainslie KM. Novel Polymeric Carriers for Immune Modulation and Drug Delivery. OSU Biophysics Seminar. Columbus, OH, 2011.

SELECTED REFEREED UNPUBLISHED ORAL PRESENTATIONS AND/OR ABSTRACTS

Oral presentations

1. Ainslie KM. Acetalated Dextran: A Spoonful of Sugar Helps the Medicine (and Vaccine) go down. UGA Center for Vaccines and Immunology. Athens, GA 2019.
2. Ainslie KM. Discovery and Formulation of Host-directed Therapies for Salmonella and Leishmania. Pharmalliance. Monash University, Melbourne AUS 2019.

3. Ainslie KM. Acetalated Dextran: A Spoonful of Sugar Helps the Medicine (and Vaccine) go down. 5th Annual Biopharmaceutical Research and Development Symposium: Nanotechnology for Immunotherapy. Omaha, NE 2018.
4. Ainslie KM. Chemically modified inulin microparticles serving dual function as a protein antigen delivery vehicle and immunostimulatory adjuvant. AIChE, San Francisco 2016.
5. Ainslie KM. Acetalated Dextran: A Spoonful of Sugar Helps the Medicine (and Vaccine) go down. The 3rd NCSU:Seqirus Technical Symposium. Raleigh, NC 2015.
6. Ainslie KM. Acetalated Dextran: A Spoonful of Sugar Helps the Medicine (and Vaccine) go down Fusion Conference: Bridging the Gap Between Basic Science and Unmet Medical Needs. Tucson, AZ. 2015
7. Schully KL, Sharma S, Peine KJ, Pesce J, Elberson MA, Fonseca ME, Prouty AM, Bell MG, Bachelder EM, Keane-Myers A, Ainslie KM. Rapid Vaccination using an Acetalated Dextran Microparticulate Subunit Vaccine Confers Protection Against Triplicate Challenge by Bacillus anthracis. Vaccine OMICS Group, Chicago, IL, 2012.
8. Ainslie KM. Novel Biopolymer Acetalated Dextran for Therapeutics and Immune Applications. Batelle Women in Science and Engineering (WISE) Conference, Columbus, OH, 2011.
9. Ainslie KM. Acetalated dextran microparticles are a potent delivery platform for vaccine adjuvants in vitro. Controlled Release Society. Portland, OR, 2010. www.controlledrelease.org/
10. Ainslie KM. Translational Therapies for Drug Delivery and Immune Modulation. Davis Heart and Lung Research Institute: Work in Progress. Columbus, OH, 2010.
11. Ainslie KM. Translational Therapies for Drug Delivery and Immune Modulation. OSU Division of Medicinal Chemistry & Pharmacognosy, Columbus, OH, 2010.
12. Ainslie KM. Novel Polymeric Carriers for Immune Modulation and Drug Delivery. OSU Comprehensive Cancer Center - Innate Immunity. Columbus, OH, 2010.
13. Ainslie KM. Novel Polymeric Carriers for Immune Modulation and Drug Delivery. OSU Chemical Engineering Seminar, Columbus, OH, 2010.
14. Ainslie KM, Desai TA. Attachment of Hydrogel Filled Micro-engineered Particles for Oral Delivery of Chemotherapeutic Agents. Controlled Release Society, Copenhagen, Denmark, 2009.
15. Ainslie KM, Kraning CM, Desai TA. Microfabricated Oral Delivery Vehicle. American Institute of Chemical Engineers, Philadelphia, PA, 2008.
16. Ainslie KM, Desai TA. Microfabricated Oral Delivery Vehicle. Gordon Research Conference: Drug Carriers in Medicine, Big Sky, MT, 2008.
17. Ainslie KM, Tao SL, Kraning CM, Desai TA. Chemotherapeutic Release From Hydrogel Filled Micro-Engineered Particles For Oral Delivery. Biomedical Engineering Society, Los Angeles, CA, 2007 and Controlled Release Society, Long Beach, CA, 2007.
18. Ainslie KM, Sharma G, Grimes CA, Pishko MV. Attenuation of Protein Adsorption on Static and Vibrating Magnetic Nanowires. Materials Research Society, San Francisco, CA, 2004.

SELECTED POSTER PRESENTATIONS

1. Jarstfer M, Ainslie K, Cox WC, McLaughlin JE, Using the Multiple Mini Interview to Assess Candidates for a PhD Program in Pharmaceutical Sciences. AACP, virtual 2020.
2. Chen N, Johnson MM, Collier MA, Gallovic MD, Bachelder EM, Ainslie KM. Optimizing Adaptive Immune Responses to Universal Flu Vaccines via Acetalated Dextran Microparticles. GRC, Mt. Snow, VT 2018.
3. Gallovic MD, Schully KL, Bell MG, Elberson MA, Palmer JR, Darko CA, Bachelder EM, Wyslouzil BE, Keane-Myers AM, Ainslie KM. Acetalated Dextran Microparticulate Vaccine Formulated via Coaxial Electrospray Preserves Toxin Neutralization and Enhances Murine Survival Following Inhalational Bacillus Anthracis Exposure. GRC, Waterville Valley, NH 2016.
4. Hoang KV, Borteh HM, Rajaram MVS, Peine KJ, Curry H, Collier MA, Homsy ML, Bachelder EM, Gunn JS, Schlesinger LS, Ainslie KM. Acetalated dextran encapsulated AR-12 as a host-directed therapy to control Salmonella and Francisella infection GRC, Waterville Valley, NH 2014.
5. Sharma S, Schully K, Pesce JT, Bachelder EM, Keane-Myers A, Ainslie KM. Microparticulate Carrier for Rapid Vaccination Against Anthrax AAPS, Washington, DC 2011.
6. Kanthamneni N, Guerau M, Huss D, Smith A, Lovett-Racke AE, Bachelder EM, Ainslie KM. Novel Microparticulate Treatment of Multiple Sclerosis with Dexamethasone and Myelin Oligodendrocyte Glycoprotein Loaded Acetalated Dextran AAPS, Washington, DC 2011.
7. Ainslie KM. Vaccine applications of pH sensitive co-axial electrosprayed microparticles. Institute for Materials Research Facility Grant Presentation. Columbus, OH, 2011.
8. Ainslie KM. Translational Drug Delivery Methods to Modulate PK/PD. OSU Center for Clinical and Translational

Science Workshop. Columbus, OH, 2011.

9. Ainslie KM Adjuvants Encapsulated in Ac-DEX Nanoparticles for Passive Targeting of Dendritic Cells and Enhanced Vaccination. Great Lakes Regional Center of Excellence, Chicago, IL, 2010. www.glrce.org/
10. Ainslie KM, Novel Polymeric Carriers for Drug Delivery and Immune Modulation. College of Pharmacy Research Day, Columbus, OH, 2010.
11. Bachelder EM, Albrecht MT, Mateczun AJ, Ainslie KM, Pesce JT, Keane-Myers AM. In Vitro Analysis of Acetalated Dextran Microparticles as a Potent Delivery Platform for Vaccine Adjuvants. Controlled Release Society, Portland, OR, 2009.
12. Ainslie KM, Tao SL, Kraning CM, Desai TA. Chemotherapeutic Release From Hydrogel Filled Micro-Engineered Particles For Oral Delivery. Presented at Controlled Release Society, Santa Barbara, CA, 2007.
13. Ainslie KM, Tao SL, Kraning CM, Desai TA. Chemotherapeutic Release From Hydrogel Filled Micro- Engineered Particles For Oral Delivery. Biomedical Engineering Society, Los Angeles, CA, 2007.
14. Ainslie KM, Tao SL, Popat KC, Desai TA. Immunogenicity and Toxicity of Non-particulate Nanomaterials. Biomedical Engineering Society, Los Angeles, CA, 2007.
15. Ainslie KM, Tao SL, Desai TA Chemotherapeutic Release From Hydrogel Filled Micro-Engineered Particles For Oral Delivery, University of California System Wide Bioengineering Conference, San Francisco, CA, 2007.
16. Ainslie KM, Sharma G, Dyer MA, Grimes CA, Pishko MV. Attenuation of Protein Adsorption on Static and Vibrating Magnetic Nanowires. American Chemical Society, Philadelphia, PA, 2004.
17. Ainslie KM, Sharma G, Grimes CA, Pishko, MV. Attenuation of Protein Adsorption on Static and Vibrating Magnetic Nanowires. American Institute of Chemical Engineers, Austin, TX, 2004.
18. Ainslie KM, Civelek M, Garanich J, Tarbell JM. Smooth Muscle Cells Contract in Response to Fluid Flow via a Ca^{2+}-Independent Signaling Mechanism. Biomedical Engineering Society (BMES), Houston, TX, 2002.

PATENTS

1. Bachelder E, Ainslie K, Lukesh NR, Middleton D, Islam MJ, Stiepel R. U.S. Provisional Patent Application No. 63/553,404. Particles and Methods for Modifying B Cells. February 14, 2024.
2. Bachelder EM, Ainslie KM, Batty CJ, Levi ME, Lifshits L. Bio-Inspired Metal Organic Polymer For Drug And Vaccine Delivery. PCT/US2023/015745. July 2023.
3. Ting JPY, Junkins R, Johnson B, Ainslie KM, Bachelder EM, Gallovic MD, Collier MA, Cheng N. Methods and Compositions for Inducing An Immune Response. Application Number: US11052149B2. June 2021.
4. Ainslie KM, Bachelder EM, Gautam S, Peine K, Satoskar A. Compositions and Methods for Inhibiting Leishmania, #14/924,605, October 2015.
5. Ainslie KM, Bachelder EM, Gallovic MD, Keane-Myers A, Schully K, Wyslouzil BE. Immunogenic Compositions and Methods for Development of An Anthrax Vaccine. September 2015.

MEDIA FEATURES

Nov 2023	Yahoo!Life "Are nasal sprays the future of medicine? Here's what you need to know about using them for vaccines and lifesaving treatment."
Nov 2021	CRS Young Scientists Committee: Interview with a Luminary
Feb 2021	Podcast: Side Effects May Vary – Two Coronavirus vaccine podcasts
Dec 2016	Carolina Scientific *The Macrophage's Bouncer*
May 2010	Medical News Today et al.: *Effects of Vaccines for HIV and Other Disease Could be Boosted by Prescription Drug*
May 2010	Pharmaceutical Formulation & Quality: *Delivery Platform Could Improve Vaccines*
June 2011	PodCast: Mammalian Cell Facts for Engineers. Fundamentals of Engineering
Jun 2008	Chemical Technology: *Hydrogel helps the medicine go down*
May 2008	Technology Research News: *This chip is a pill*

TEACHING ACTIVITIES

Year	Course name	Course Number	Lectures Taught	Enrollment	Course type	Overall Evaluation
2023 SU	Pharmacy Internship	PHCY 850	1	14	Professional	4.2/5 ave. 4.5
2023 SP	Pharmaceutics Drug Delivery II	PHCY 514	1	136	Professional	5*/5 ave. 5

Year	Course name	Course Number	Lectures Taught	Enrollment	Course type	Overall Evaluation
2023 SP	Nanomedicine	DPMP 738	3	8	Graduate	5*/5 ave. 4.0
2022 AU	Pharmaceutics Drug Delivery I	PHCY 512	7	137	Professional	4/5 ave. 3
20222 SP	Nanomedicine	DPMP 738	5	9	Graduate	4.5*/5 ave. 4.4
	Pharmaceutics II	PHCY 514	4	154	Professional	4.4/5 ave. 4
2021 AU	Pharmaceutics Drug Delivery I	PHCY 512	3	147	Professional	5*/5 ave. 4
	Advances in Drug Delivery	DPMP 864	2	8	Graduate	5*/5 ave. 4.6
2021 SU	Pharmacy Internship	PHCY 850	1	13	Professional	4.8*/5 ave. 4.3
2021 SP	Nanomedicine	DPMP 738	5	12	Graduate	4.9*/5 ave. 4.4
	Pharmaceutics II	PHCY 514	4	124	Professional	4.5/5
2020 AU	Advances in Drug Delivery	DPMP 864	3	8	Graduate	-
2020 SP	Pharmaceutics II	PHCY 514	4	133/23	Professional	4.13 & 4.33/5
	Nanomedicine	MOPH 862	6	5	Graduate	4.33/5 ave: 3.7
2019 AU	NSF Fellowship	DPMP 869	12	6	Graduate	5.0/5
	Advances in Drug Delivery	DPMP 864	6	10	Graduate	4/5 ave: 3.8
2019 SP	Pharmaceutics II	PHCY 514	4	127/16	Professional	3.53 & 4.57/5 ave: 3.89/5
	Nanomedicine	MOPH 862	5	7	Graduate	5/5 ave. 3.33
2018 AU	Advanced Drug Delivery	MOPH 864	5	8	Graduate	4.5/5 (ave: 4/5)
2018 SP	Pharmaceutics II	PHCY 512	4	124/29	Professional	4.12 & 3.73/5 ave: 3.41/5
	Advanced Physical Pharmacy	MOPH 862	3	6	Graduate	NA
2017 AU	Advances in Drug Delivery and Nanomedicine	DPMP 868	5	6	Graduate	4.83/5.0
2017 SP	Pharmaceutics II	PHCY 512	4	125/25	Professional	4.25 & 4.27/5
2017 SP	Advanced Physical Pharmacy	MOPH 862	3	6	Graduate	NA
2016 AU	Advances in Drug Delivery	MOPH 868	6	6	Graduate	4.6/5
2016 AU	Nanomedicine	MOPH 738	4	7	Graduate	4.6/5
2016 SP	Pharmaceutics II	PHCY 512	4	125/25	Professional	4.25& 4.27/5
	Advanced Physical Pharmacy	MOPH 862	3	6	Graduate	
2016 SP	Advanced Pharmaceutics	MOPH 862	3	8	Graduate	NA
2016 SP	Seminar	PHRS 899.004	14	30	Graduate	NA
2015 AU	Advances in Drug Delivery	MOPH 864	3	15	Graduate	3.8/5
2015 AU	Seminar	PHRS 899.004	14	30	Graduate	NA
2015 SP	Pharmaceutics II	PHCY 411	3	132	Professional	3.75/5
2014 AU	Nanomedicine	MOPH 738	1	18	Graduate	NA
2014 SP	Drug Delivery II	PHARM 6220	23	121	Professional	4.8/5
2014 SP	Pharmaceutics	PHARM 4250	5	~70	Undergraduate	NA
2013 SP	Drug Delivery II	PHARM 6220	23	126	Professional	4.4/5

Year	Course name	Course Number	Lectures Taught	Enrollment	Course type	Overall Evaluation
2013 SP	Pharmaceutics	PHARM 4250	4	~70	Undergraduate	NA
2013 SP	Seminar	PHARM 8500	15	19	Graduate	NA
2012 AU	Drug Transport	PHARM 8040	12	9	Graduate /Undergraduate /Professional	NA
2012 AU	Seminar	PHARM 8500	15	20	Graduate	NA
2012 SP	Drug Delivery II	PHARM 622	29	124	Professional	3.5/5
2012 SP	Pharmaceutics	PHARM 425	4	91	Undergraduate	4.1/5
2012 SP	Seminar	PHARM 850	15	17	Graduate	NA
2011 AU	Seminar	PHARM 850	15	22	Graduate	NA
2011 SP	Drug Delivery II	PHARM 622	29	142	Professional	2.9/5
2011 SP	Seminar	PHARM 850	15	23	Graduate	NA
2011 SP	Pharmaceutics	PHARM 425	4	71	Undergraduate	3.6/5
2010 AU	Drug Transport	PHARM 804	26	10	Graduate	4.2/5
2010 AU	Intro to Pharm Science	PHARM 852	1	23	Graduate	NA
2010 AU	Seminar	PHARM 850	15	22	Graduate	4.4/5
2010 SP	Drug Delivery II	PHARM 622	14	128	Professional	2.3/5
2009 AU	Intro to Pharm Science	PHARM 850	1	~20	Graduate	NA

*worthy of recognition

ADVISING

Current Lab Members

Name	Previous Degree	Position	Started	Topic	Awards
Staff					
Elizabeth Gurysh	PhD Biomedical Engineering, Wake	Research Associate	2021	Acetalated Dextran Scaffolds	PhRMA Post Doc Fellowship, NIH F32
Post Doc					
Denzel Middleton	PhD Animal and Food Science, WVU	Post Doc	2021	T1D Tolerance	NIH Supplement
Md Jahirul Islam	PhD Immunology, Korea	Post Doc	2023	Vaccines	
Luis Alberto Ontiveros Padilla	PhD Immunology: National Autonomous University of Mexico	Post Doc	2021	Vaccines	
Graduate					
Erik Pena	BS Chemical Engineering Canada	Graduate Student, Biomedical Engineering	2020	Influenza vaccines	
Ryan Woodring	BS Chemical Engineering, Penn State	Graduate Student, Pharmaceutical Sciences	2021	GBM Scaffolds	PharmAlliance Fellowship; Translational Medicine T32
Grace Williamson	BS Chemical Engineering, Iowa	Graduate Student, Pharmaceutical Sciences	2023	Pox vaccines	Eshelman Fellowship
Nicole Lukesh	BS Chemical Engineering, Notre Dame	Graduate Student, Pharmaceutical Sciences	2021	T1D Tolerance	Eshelman Fellowship

Name	Previous Degree	Position	Started	Topic	Awards
Connor Murphy	BS Biology, Virginia Tech	Graduate Student, Pharmaceutical Sciences	2023	Pox vaccines	
Sophie Mendell	BS Chemistry, UC Santa Cruz	Graduate Student, Pharmaceutical Sciences	2023	Glioblastoma	Translational Medicine T32
PharmD Researcher					
Kevin Shilling	U Tenn, Chemical Engineering	Researcher	2023	Glioblastoma	
Undergraduate					
Stephen Ehrenzeller	UNC, Applied Biology	Undergraduate Researcher	2021	Tolerance	
Sophia Ly	UNC, BME	Undergraduate Researcher	2023	Vaccines	
Steven Nuzzolo	UNC, Neuroscience	Undergraduate Researcher	2022	Tolerance	SURF fellowship

Former Lab Members

Name	Previous Degree	Position	Years	Thesis Title/Topic	Awards	Next Position
Post Doc						
Nancy Elbaz Elmotayem	Ph.D. in Chemistry at the University of Liverpool	Post Doc	2023	Vaccines		Post Doc
Sean Simpson	PhD Biochemistry, Wake	Post Doc	2019-2022	Autoimmune therapies		Industry
John Roque II	PhD Chemistry, UNC Greensboro	Post Doc	2021-2023	Vaccine		Industry
Adam Sandor	PhD Biochemistry, U of Colorado	Post Doc	2018-2020	Cancer therapies	T32 Cancer Nanotechnology Fellow Co-advised with Dr. Jenny Ting	Post Doc
Liubov Lifshits	PhD Chemistry, Bowling Green	Post Doc	2020-2022	Vaccines		Scientist
Elizabeth Gurysh	PhD Biomedical Engineering, Wake	Post Doc	2015-2021	Acetalated Dextran Scaffolds	PhRMA Post Doc Fellowship, NIH NCI F32	Research Associate
Devika Sharma	PhD Biomedical Engineering, SUNY City College	Post Doc	2019-2021	Vaccines and Host Directed Therapies		Scientist, Baebies
Eva Amouzougan	PhD Pharmacology, Arizona	Post Doc	2020-2021	Influenza vaccines		Scientist, Charles Rivers
Md. Shamim Hasan Zahid	PhD Animal Science, Japan	Post Doc	2016-2020	Host directed therapies towards		Scientist, Triangle

Name	Previous Degree	Position	Years	Thesis Title/Topic	Awards	Next Position
				pathogens		Biotech
Meital Levi	PhD, Chemistry, Bar Ilan University	Post Doc	2018-2020	Vaccines		Scientist, Sigma Millipore
Jon Williams	PharmD, Duquesne University	Post Doc	2018	Vaccines		Specialist, Nuventra Pharma Sciences
Monica Johnson	Pharm Sci, University of Colorado	Post Doc	2017	Host directed therapies		Co-Founder at STEM Boomerang
Archana Kovi	PhD Chemistry, Northwestern	Post Doc	2016	Chemical ligation of Ac-DEX		Scientist, RTI, International
Matthew Gallovic	PhD Chemical Engineering, Ohio State	Post Doc	2016-2018	Scalable production of vaccines		Lead Scientist, IMMvention Therapeutix
Pam Tiet	PhD Biomedical Engineering, City of Hope	Post Doc	2017-18	Cancer Immunotherapy	T32 Cancer Nanotechnology Fellow	Scientist, Process Development at Atara Biotherapeutics
Siabal Bandyopad-hyay	PhD Chemistry, University of Missouri	Post Doc	2013-2014	Ligation to Acetalated Dextran		Chief Scientific Officer, Neverwet
Anthony Duong	PhD Chemical Engineering, Ohio State	Post Doc	2013-2014	Electrospray of liposomes		Battelle, Research Scientist
Shalini Guatum	PhD Microbiology, India	Post Doc	2013-2014	Host-Directed Leishmania Therapies		Post Doc, Ohio State
Hassan Borteh	PhD Biomedical Engineering, Ohio State	Post Doc	2012-2013	Acetalated dextran scaffolds		Lecturer, Columbus State University
Samantha Meenach	PhD Chemical Engineering, Kentucky	Post Doc	2009-2010	Pulmonary Delivery		Assistant Professor, University of Rhode Island
Graduate						
Kevin Peine	BS Biology, DePaul	Graduate Student, OSU Molecular, Cell & Developmental Biology	2010-2014	Formulation of Particulate-based Immunomodulatory Therapeutics		AAAS Fellow, USAID Scientist
Matthew Gallovic	BS Chemical Engineering, Northwestern	Graduate Student, OSU Chemical Engineering	2010-2016	Scalable production of vaccines	OSU Chemical Engineering Outstanding Graduate Award for Academic Achievement	Lead Scientist, IMMvention Therapeutix
Michael Collier	BS Biomedical Engineering, Clemson	Graduate Student, Pharmaceutical Sciences	2011-2017	Immune modulating therapies	GSK Fellowship award, Fusion conference poster award,	Formulation Scientist, Moderna Therapeutics

Name	Previous Degree	Position	Years	Thesis Title/Topic	Awards	Next Position
					GPEN Conference travel award	
Naihan Chen	BS Biochemistry, Smith College	Graduate Student, Pharmaceutical Sciences	2014-2018	Antigen specific autoimmune therapies	Feng Liu Student Award	Pfizer, Clinical Pharmacology
Kathryn Moore	BS Biology, Georgia State	Graduate Student, Biomedical Engineering	2015-2020	Acetalated Dextran Scaffolds and microconfetti	GRC Poster Award 2108, BMES Poster Award 2017, NSFGFP	Post doc at Emory
Christopher Genito	BS Biochemistry, University of Maryland	Graduate Student, Microbiology & Immunology	2017-2021	Antigen specific autoimmune therapies	T32 Immunology Fellowship	Post Doc UNC
Kunyu Qiu	BS Pharm Sci Tsinghua University	Transfer from Anselmo Lab	2021-2021	Oral Delivery of Bacteria		Consulting position
Ava Vargason	BS Chemical Engineering U Kentucky	Transfer from Anselmo Lab	2021-2022	Functionalization of Bacteria	UNC 3MT winner	UNC Administration
Cole Batty	BS Chemistry, University of Minnesota	Graduate Student, Pharmaceutical Sciences	2017-2022	Vaccine formulations	Dissertation Completion Award, Feng Liu Award	Post Doc
Rebeca Stiepel	BS Chemical Engineering, U So Cal.	Graduate Student, Pharmaceutical Sciences	2019-2023	Autoimmune vaccines	Ford Foundation Fellowship	Carolina Postdoctoral Program for Faculty Diversity
Dylan Heady	BS Pharmaceutical Sciences, Michigan	Graduate Student, Pharmaceutical Sciences	2021-23	Influenza Vaccines	Eshelman Fellowship, CRS Trainee Award for Immuno Delivery Focus Group, GSK Fellowship, UNC Dissertation Completion Fellowship	Zoetis, Scientist
Undergraduate						
Rachel Gentile	UNC, Biomedical Engineering	Undergraduate Researcher	2022-23	New adjuvants		
Eliza Dugan	Durham Math and Science High School/Johns Hopkins	Researcher	2021-2023	Nanoparticles		
Alex Haven	UNC, Biology	Chancellor's Science Scholar	2022-23	Protein structure assays		UNC
Brooke Thibault	UNC, Neuroscience	Undergraduate Researcher	2022-23	Glioblastoma		UNC PharmD class enrolled

Name	Previous Degree	Position	Years	Thesis Title/Topic	Awards	Next Position
						2023
Aliyah Tate	NC A&T, Biology	SROP Researcher	2022	Tolerance	ABRCMS travel award; ABRCMS poster award for immunology	Florida Graduate Program
Elizabeth Redding	UNC, Biology	Undergraduate Researcher	2020	Leishmania		
Jalen Heyward	BS Psychology	Chancellor's Science Scholar	2017	Host-directed pathway discovery		
Deanna Brackman*	BS Pharmaceutical Science (BSPS), Ohio State	Undergraduate Researcher	2012-2014	Encapsulation of immune modulatory agents	OSU Summer Undergraduate Research Fellowship; OSU BSPS Undergraduate Research Fellowship	Graduate School, UCSF
Douglas Montjoy*	BS Chemical Engineering	Undergraduate Researcher	2012-2014	Acetalated Polymers	OSU Summer Undergraduate Research Fellowship	Graduate School, Michigan
Mike Homsy	BS Chemical Engineering, Ohio State	Undergraduate Researcher	2013-2014	Encapsulation of tolerogenic agents		Medical school
Erin Pesa	BS Finance, Ohio State	Undergraduate Researcher	2011	Immune activating acetalated polymers		Finance
Lauren Dellon	BS Chemical Engineering, Ohio State	Undergraduate Researcher	2011	Pulmonary Delivery		Graduate School, Northwestern
Katie Gregg	BS Chemical Engineering, Ohio State	Undergraduate Researcher	2010-2012	Immune activating acetalated polymers		Consultant at Newry Corp.
Claire Parker	BS Biomedical Engineering, Ohio State	Undergraduate Researcher	2009-2010	Pulmonary Delivery		R&D Senior Design Engineer at Ethicon
Kevin Kauffman*	BS Chemical Engineering, Ohio State	Undergraduate Researcher	2009-2012	New acetalated polymers	Pelotonia Undergraduate Research Fellowship; Chemical Engineering Research Fellowship; Honorable Mention OSU Undergraduate Research Forum Best Poster; OSU Summer Undergraduate Research Fellowship	Graduate School, MIT
Yu Jeong Kim	BS Pharmaceutical Science	Undergraduate Researcher	2009-2012	Pulmonary Delivery	OSU Summer Undergraduate Research	Graduate School, USC

Name	Previous Degree	Position	Years	Thesis Title/Topic	Awards	Next Position
	(BSPS), Ohio State				Fellowship	
Ben Pierson	BS Chemical Engineering, Ohio State	Undergraduate Researcher	2009-2010	Amphotericin B formulations		Doctor of Osteopathy School
Kaylyn Pogson*	Pending BS in Biology	Undergraduate Researcher	2014-2015	Formulations of Resiquimod	Best Poster at UNC Celebration of Undergraduate Research; UNC's Taylor Summer Undergraduate Research Fellowship;	UNC Undergrad
Quinta Fernandes	Pending BS in Biology		Undergraduate Researcher	2014-2015	Particle fabrication	UNC Undergrad
Graham Collins*	BS in BME, UNC	Undergraduate Research	2015-17	Acetalated Dextran Scaffolds	UNC's Taylor Summer Undergraduate Research Fellowship; BME Undergraduate Research Award;	GA Tech BME Grad Program
Rick Harrison	Pending BS in Biology	Undergraduate Research	2016-17	Acetalated Dextran Scaffolds		UNC Undergrad
Mabel D'Souza	Pending BS in Chemistry	Undergraduate Research	2016-17	Meta analysis of polymers for siRNA delivery		UNC Undergrad
Rebeca Thweat	BS in Chemical Engineering	SOLAR Scholar	2017	Modeling of drug diffusion from nanoparticles		UNC, PhD
Dylan Schuler	Pending BS in Chemistry	Undergraduate Research	2016-17	Meta analysis of polymers for siRNA delivery		UNC Undergrad
Ananya Murthy	University of Texas, Austin	Undergraduate Researcher in Biomedical Engineering	2017	Cancer drug synergy		Apply to PhD/MD programs
Kapil Ramanarayanan	UNC, Biomedical Engineering	Undergraduate Researcher	2021	Scaffold development		Post Bach researcher
Other						
Sean Simpson	PhD Biochemistry, Wake	Research Associate	2022-23	Autoimmune therapies		Industry
Timothy Dixon	BS Chemistry, Wake	Research Technician	2022-23	Vaccines		Medical school
Brandon Mccammitt	UNC, Chemistry	Research Technician	2021	Vaccine carriers		RTI Scientist

Name	Previous Degree	Position	Years	Thesis Title/Topic	Awards	Next Position
Michael Hegarty	BS Biochemistry, Ohio State	Technician	2013			Medical school
Duane Probst		Research Technician	2012-2013			Student
Ashley Bowden	PharmD, Ohio State	Summer Intern	2012	Tolerogenic polymers		Pharmacist
Clement Do	PharmD, Ohio State; PhD Chemistry, USC	Summer Intern	2012, 2013	New acetalated polymers		Pharmacist
Sadhana Sharma	PhD Biomedical Engineering, University of Illinois	Research Scientist	2011-2010	Vaccines against bioterrorism agents		Administrator, Ohio State

*Undergraduate honors

Graduate Committees

Current: Timothy Little (Chair)

Past**:** Anthony Duong (OSU; Chemical Engineering); Sneha Grupta (OSU; Pharm Sci); Tien-Lu Huang (OSU; Pharm Sci); Lei He, (OSU; Pharm Sci); Jay Kim (Chair; Pharm Sci); Okolie Onyinyechukwu (Pharm Sci); Carla Coste Sánchez (Chair; Pharm Sci); Shaye Hagler (Pharm Sci); Morgan McSweeney (Pharm Sci); Rebekah Watkins-Schultz (Genetics); Manisit Das (Phrm Sci); Patrick Hanafin (Chair)

FACULTY AND PRE-FACULTY MENTORING

PRE-FACULTY MENTORING

2021-Pres Rebeca Stiepel (UNC, Grad Student DPMP)
2021-Pres Sophie Maiocchi (UNC, Cell Biology & Physiology)
2021-2022 Edikan Ogunnaike (UNC, T32 Post Doc DPMP)
2021-Pres Mohamed Attia (UNC, T32 Post Doc DPMP)
2021-Pres John Johnson (Faculty, Terasaki Institute for Biomedical Innovation)
2017-Pres Cole Batty (UNC, Grad Student DPMP)
2021 Haissi Cui (Scripps Institute, then University of Toronto)

TENURE-TRACK FACULTY

2023-Pres Ximena Bustamante-Marin, Assistant Professor, Nutrition
2021-Pres Owen Fenton, Assistant Professor, DPMP
2021 Aaron Anselmo, Assistant Professor, DPMP
2021-2022 Devika S-Manickam, Assistant Professor, Duquesne University School of Pharmacy
2020-Pres Erin Heinzen, Associate Professor, DPET *Campbell Mentoring Program*
2020 Josh Thrope, Associate Professor, DPOP *Campbell Mentoring Program*
2019-2020 Yevgeny Brudno, Assistant Professor, NC State BME
2016 Perla Ayala, Assistant Professor, CSULB Biomedical Engineering Department *On negotiating offer*
2015 Lesley Chow, Assistant Professor, Lehigh University BME *On negotiating offer*
2014 Lina Cui, Associate Professor, University of Florida *On negotiating offer*
2012 Jill Millstone, Assistant Professor, University of Pittsburgh Chemistry *On negotiating offer*
2011 Olivia Merkel, Assistant Professor, Wayne State *On negotiating offer*

GRANTS

CURRENT SUPPORT

R01AI137525-01A1 (PI: Ainslie) 7/1/2018-6/30/2024 2.4 calendar
NIH $1,891,998
Biomaterials to study tolerance immune induction kinetics

Antigen specific treatment of autoimmune diseases, like multiple sclerosis, relies on the communication between dendritic cells and T cells. To understand this and the role of nanoparticles in enhancing the immune synapse, we aim to apply acetalated dextran nanoparticles that have been previously shown to reduce clinical score in a mouse model of multiple sclerosis. We will use the unique degradation rates of acetalated dextran to understand the kinetics of dendritic and T cell interactions as it relates to tolerance.

Contract No. 75N93019C00052 (PI: Ainslie) 9/16/2019 - 8/31/2026 0.96 calendar
University of Georgia / NIH $1,687,861

Center for Influenza Vaccine Research in High Risk Populations (CIVICs)

Our proposed research plan will converge human vaccine assessment with currently commercial vaccines in populations that are under-represented in many vaccine trials and compared results in match animal models to assess the effectiveness of universal vaccine formulations developed in the CIVR-HRP. These data sets will be analyzed and statistical models will be produced to make intelligent predictions for success of our universal vaccine candidates in people.

Option 19: Intranasal M7 and CpG nanoparticulate adjuvant for subunit COBRA vaccination in Ferrets
9/16/2023 - 8/31/2024 $431,135 (PI: Ainslie) 1.2 calendar

1R01AI147497-01A1 (PI: Ainslie) 01/14/2020 - 1/13/2025 1.8 calendar
NIH $2,919,766

Optimizing a Universal Influenza Subunit Nano/Microparticulate Vaccine

Here we propose an improved influenza vaccine that can act more broadly to prevent infection from viruses that have undergone natural genetic changes that prevent current flu vaccines from being efficacious. Our goal is to formulate computer generated influenza antigens (COBRA antigens) into degradable biopolymeric (Ac-DEX) nanoparticles to improve the vaccine's efficacy by co-delivering immune activating adjuvants.

1R01DK130225-01 PI: Ainslie 1.44 calendar
NIH 7/1/2021 – 6/30/2025 $1,526,836

Formulation to Generate Tolerance Towards Type 1 Diabetes

Antigen specific tolerance towards type-1 (insulin dependent) diabetes can provide a long-term cure for the disease without the need for administration of exogenous insulin. We propose the use of microparticles to reprogram the immune system's response against the islet cells by creating antigen specific tolerance to mitigate the harmful autoimmune response.

1R01CA257009-01A1 PI: Ainslie 1.56 calendar
NIH 8/1/2021 – 7/31/2026 $1,797,170

Tunable Temporal Drug Release for Optimized Synergistic Combination Therapy of Glioblastoma

Glioblastoma is a devastating brain cancer that needs new treatment options because even with chemotherapy, radiation, and surgical resection, tumor recurrence almost always leads to death. Here we propose synergistic combination therapy that relies on optimized elution of chemotherapeutics from a nanofibrous controlled-release scaffold placed in the brain at time of surgery to remove the tumor.

R01AI167099 PI: Ainslie 1.8 calendar
NIH 1/01/2023 - 12/31/2028 $3,231,335

Mechanistic evaluation of mast cell agonists combined with TLR, NOD and STING agonists

Adjuvants are used to promote immune responses and formulate efficacious vaccines. Here we evaluate adjuvant combinations with mast cell agonists, evaluate it as a vaccine against an animal model of smallpox and evaluate its mechanism of action.

COMPLETED

Defense Threat Reduction Agency (DTRA) 9/09-9/10 0 mos $96,959

Stimulation of broad spectrum protection via TLR 7, 8 & 9

OSU IMR PI: Ainslie 4/11-3/12 0.0 mos $2,000

High throughput Production of Multi-component Multi-layered Acetalated Dextran-based Nanoparticle for Vaccination

DARPA PI: Ainslie 6/11-2/12 0 mos $3,000

Optimization of Resiquimod in Vaccine Microparticulate Carrier to Modify Immune Cells for Vaccine Formulation

W911NF-10-1-0264 PI: Ainslie 9/10-6/13 2.4 mos $1,176,660
7-day Biodefense: Universal vaccine microparticulate carrier that encapsulates immune modifiers and antigens in a novel polymeric matrix to passively target dendritic cells.

DTRA PI: Keane-Myers/Ainslie 6/13-5/14 0.6 mos $779,517
Development of needle-free, multi-formulation nanoparticle vaccine

R21 NS072813-01 PI:Ainslie 8/11-7/13 0.6 mos. $419,375
Encapsulated Active Vitamin D Vaccine for the Treatment of Multiple Sclerosis

R21 AI095773 consultant (PI: Pappenfus) 8/12-7/14 0 mos $419,375
Regulatory myeloid cells in inflammatory disease: Therapy and targeted generation with micro particles

Arno Therapeutics co-I (PI: Schlesinger) 0 mos $200,000
Use to fund additional studies in the Center for Microbial Interface Biology (CMIB) at OSU.

R21 AI102252 PI 7/12-6/17 0.6 mos $415,113
Celecoxib Derivative: Host Cell-Directed Inhibitors of Intracellular Pathogens

EII PI 5/16-3/18 $50,000
Long acting formulations for HIV therapy **0 mos**

R33 AI102252 PI: Ainslie $989,229
NIH 7/12-6/18 0.6 mos
Celecoxib Derivative: Host Cell-Directed Inhibitors of Intracellular Pathogens

1R21AI123692-01 PI: Ainslie $423,739
NIH 4/16 – 3/19 1.2 mos
Microparticle resiquimod for the treatment of visceral leishmaniasis

1R41AI140795 PI: Ainslie (lead)/Goyal 06/1/2018 – 10/31/2019 1.35 calendar
IMMvention Therapeutix/NIH $104,140
STTR: Advancing Formulation of STING agonist for Universal Flu Vaccine

2018-BIG-6504 (PI: Ting) 1/01/2018 – 12/31/2019 0.24 calendar
Role: Investigator $200,000
North Carolina Biotechnology Center (NCBC) NCE
Advancement of Immunotherapeutic Formulation for Breast Cancer

PA2018TierA_ID26 (PI: Ainslie) 01/01/2019 - 12/31/2019 0.12 calendar
PharmAlliance $49,840
Filling an unmet need with Malaria vaccines: an antibody inducing blood-stage microparticulate subunit vaccine

Grant # (PI: Ainslie) 01/01/2019 – 2/29/20 0.6 calendar
Duke University / NIH $125,187
Adjuvant Discovery Program

State Funded NC Policy Collaboratory 7/01/2020-12/30/2020
Role: Co-Investigator $342,411
A vaccine against COVID-19 that strongly induces three branches of immunity

No Number (PI: Ting/Ainslie) 7/01/2018 – 6/30/2020 0.12 calendar
UNC Lineberger Comp. Cancer Ctr $100,000
A Novel Microparticle Platform to Activate Innate Immunity as an Immunotherapeutic for Triple Negative Breast

Cancer

1F32CA225199-01A1 (PI: Ainslie) 7/01/2018-4/30/2021 0 calendar
NIH
Combination Therapy of Stem Cells and Drug Eluting Scaffolds to Treat Glioblastoma
Glioblastoma is a devastating disease with limited therapeutic options due to tumor location, heterogeneity and drug resistance. This project proposes that combination therapy administered locally can overcome these challenges and lead to improved outcomes.

2021-FLG-3822 (NCBC) PI: Ainslie 0 calendar
NC Biotech Center 08/15/2021 – 08/14/2022 $20,000
Patient-friendly oral dosage forms for living biological therapeutics
Due to the strict storage requirements of LBPs (e.g. -80°C, anaerobic environment), LBPs almost exclusively available as in-patient treatments during visits to healthcare providers, where suitable storage equipment is readily available; as such, there is an emergent need to develop patient-friendly oral dosage forms of LBPs that can be taken conveniently at home.

5R01NS097507-02 (PI: Hingtgen) 6/1/2016 – 5/31/2022 1.06 calendar
NIH/NIND Role: Co-Investigator $1,628,896
Nanofiber matrices to improve neural stem cell-mediated cancer therapy
This proposal seeks to define the design cues that are essential for polymeric scaffolds to improve tNSC therapy, and determine the efficacy of novel polymeric scaffolds capable of maximizing cytotoxic tNSC treatment of surgically resected GBM.

5R01AI125147-02 (PI: Ainslie (lead)/Blough) 4/22/2016 – 3/31/2023 3.0 calendar
NIH/NIAID $5,961,014
Host Targeted Therapy for Drug Resistant Salmonella and Francisella infection
We propose the optimization of a host targeted therapeutic for the treatment of infection due to drug resistant bacteria. We will alter the chemical structure and formulate the drug to increase the efficacy of the compound. We will perform experiments that will help enable IND FDA filling of the proposed therapy.

R01AI141333-01(PI: Ting/Bachelder) 12/14/2018 – 11/30/2023 1.2 calendar
NIH Role: Co-Investigator $6,054,843
Micro-Particle Delivery of a Potent Intracelluar Adjuvant for a Universal Flu Vaccine
This proposal plans to use a unique microparticle formulation to deliver adjuvants comprised of pathogen-associated molecules to activate the immune system. We propose that such an activated immune system will aid in vaccine responses to emerging viruses of urgent health impact.

PROFESSIONAL SERVICE

NIH PROGRAM AFFILIATION

2023-Pres NIH Molecular Mechanisms of Combination Adjuvant Program
2019-Pres NIH NIAID Collaborative Influenza Vaccine Innovation Centers (CIVIC)

GRANT REVIEW ACTIVITIES

2023 NIH ZRG1 MBBC-N (70), ZEB1 OSR-D (J2) P, ZAI1 KLM-I (J3) 2, 2024/05 ZDK1 GRB-S (M3) R
2022 NIH NANO, ZAI1 AWA-M-M1
2021 NIH NANO, ZRG1 F07A-H (20)
2020 NIH NANO Standing Member
NIH Emergency COVID ZAI1 JHM-X (J2)
2019 NIH NANO Standing Member
NIH CSR/SSI Anonymization Project
2018 CDMRP DIS-VDID
NIH CSR/SSI Anonymization Project
NIH NANO
NIH BMBI
NIH ZAI1 KP-M (M1) 1 Vaccines and Immunophrophylactics against Antibiotic-Resistant Bacteria

	NIH EBIT
2017	NIH Non-HIV Microbial Vaccines ZRG1 IMM-R (12)
	NIH R10 Innovative immunology SBIR (2x)
	NIH ZRG1 CB -M (50) MIRA
2016	NIH NANO
	NIH Non-HIV Microbial Vaccines ZRG1 IMM-R (12) B
	NIH BAA Bacterial Vaccines ZAI1 TT-M(C1)
	NIH VMD 2016/05 ZRG1 IMM-R (90) B
	NIH Non-HIV Microbial Vaccines ZRG1 IMM-R (12)
2015	Swiss National Science Foundation Fellowship Application
	NIH Nano Study Section Ad Hoc
	NIH SBIR Clinical Trials 2015/01 ZAI1 TT-M (J3) 1
	NIH SBIR ZRG1 IMM-R (12)
	NIH R15 ZRG1 OTC-N (80) A
2014	NIH SBIR Review Topic 028
	USAMRMC American Institute of Biological Sciences Grant Reviewer
2013	NIH NINDS/NIA EUREKA Review (ZNS1 SRB N (04))
	NIH Drug Target Development and Validation for Antimicrobial-Resistant Pathogens ZAI-SM-M-J1
	OSU PHPID
	OSU CMIB/Arno Therapeutics Grant Committee
2012	Deutsche Forschungsgemeinschaft (German Research Foundation) vaccine grant
	Technology Foundation STW, The Netherlands, tolerance grant
	Ohio State University CCTS
2011	NIH Partnerships in Biodefense RO1 Immunotherapeutics (ZAI1 RGK-M (J1))
	NIH Partnerships in Biodefense RO1 Bacterial Vaccines (ZAI1 RGK-M (J3))

PUBLIC SERVICE

2023	Organized (~25) graduate students, post docs and faculty for science demonstrations at Culbreth Middle School, Scroggs STEAM Night and Waccamaw Siouan Tribe STEM Day
2022	NC ScienceFest Demonstration organizer for ESOP demonstrations
2016	NC Museum of Natural Sciences Final Friday Nanotechnology Expert – answering questions of general public
2016	UNC Women in Science, Panelist
2015	UNC Women in Science, Speed Networking, Mentor
2015 - 2019	Mary Scroggs STEAM Workshop, Who Broke the Cookie Jar? and Hovercraft demonstration with help recruited for division graduate students.
2009-2013	Judge, Fundamentals of Engineering, OSU
2008	NSF Expanding your Horizons in Science and Mathematics, San Bruno, CA.
	Nanotechnology Program for PBS *DragonflyTV investigation*, St. Paul, MN.
2007	Community Resource for Science, Berkeley, CA.
2001 – 2005	Science Lions; K-12 Interdisciplinary Science Outreach Organization, State College, PA.

- Founded and resided as president for three years.
- Enlisted funding for initial start-up and continuation: > $15,000.
- Developed organization structure that is used to currently maintain group without self-involvement.

1996 – 1999 Science Theatre; K-12 Interdisciplinary Science Outreach Organization, East Lansing, MI.

- Developed three chemistry, engineering, and biology related presentations.
- Created engineering department and recruited initial members and funding estimated at $1,000.

PUBLICATION EXTERNAL REVIEWER

Journal Reviewer: Biomedical Microdevices, Langmuir, Acta Biomaterialia, ACS Nano, Advance Drug Delivery Reviews, The Journal of Biomaterials Science: Polymer Edition, Accounts of Chemical Research, Chemical Reviews, Biomaterials, Molecular Pharmaceutics, Journal of Controlled Release, Carbohydrate Chemistry, Acta Materialia, Biochimica et Biophysica Acta, Science, Adv Materials

SERVICE TO PROFESSIONAL ORGANIZATIONS

2020 – 2021	Rising Stars in Drug Delivery and Novel Carriers Webinar co-organizer
2020	Nanoformulation Workshop and NanoDDS session and roundtable co-chair
2020 - Pres	Abstract reviewer, BMES, AAPS, CRS
2017 - Pres	AAPS UNC Student Chapter Faculty Advisor
2015 - 2016	Co-organizer for Fusion Conference, Host Directed Therapeutic Strategies to Combat Infection and Reduce Emergence of Drug Resistance Conference
2011 - 2014	ISPE OSU Student Chapter Faculty Advisor
2010 - 2014	AAPS OSU Student Chapter Faculty Advisor
2009 - 2011	Controlled Release Society Oral Drug Delivery Committee Leader

SERVICE TO COMPANIES

2012 - 2014	Scientific Advisory Board Member, Peptineo, Albuquerque, NM
2017	Co-Founder IMMvention Therapeutix, Durham, NC
2017 - 2020	Scientific Advisory Board Member, IMMvention Therapeutix, Durham, NC

SERVICE TO ADMINISTRATIVE COMMITTEE

University Activities

2022 – Pres	Faculty Research Committee
2020 – Pres	UNC, LGBTQ+ Ally
2021	UNC, Completed LGBTQ+ Advanced Safe Zone Training
2020	UNC, Completed LGBTQ+ Safe Zone Training
2018 – Pres	UNC, CHANL Advisory Committee
2016 - 2018	UNC, Eshelman School of Pharmacy, Dean Search Committee
2016 - 2018	UNC, Graduate School Administrative Board Member
2016 - 2018	UNC, Academic Policy Committee Member
2012	OSU, College of Pharmacy, Dean Search Committee
2011	OSU, Consultant for CCTS Webpage Development
2012	OSU, Summer Research Opportunities Program, Judge and Mentor
2010 - 2014	OSU, Ohio State Information Committee Chair; Immunology Round Table

School/College Activities

2022-2023	UNC, Filed undergraduate Pharm Sci Minor that stared Fall 2023
2022-2023	UNC, CNDD Review Committee, Chair
2021 - 2022	UNC, Organized School-Wide Graduate Activities such as Game Night and Cookie Decorating
2021 - 2022	UNC, BS Pharmaceutical Sciences Task Force Chair
2020	UNC, Organized School-wide LGBTQ+ training
2020 - 2020	UNC, Research Enterprise Subcommittee
2019 - 2021	UNC, Vice Chair, Division of Pharmacoengineering & Molecular Pharmaceutics
2019 - 2020	UNC, Faculty Advisory Team
2017 - 2018	UNC, PharmD Accreditation Self-Study Group Assignments - Standards (18-19): Faculty and Staff Quantitative and Qualitative Factors
2018 - 2019	UNC, Core Curriculum Committee, Chair
2018 - 2018	UNC, COGSS: Committee for Optimization of Graduate Student Selection, Chair
2017 - 2019	UNC, Graduate Visionary Committee
2016	UNC, Advanced Inquiry into Pharmacy, Curriculum Transformation Committee
2015	UNC, Graduate Program Governance Committee
2015	UNC, Family Day Vaccine Session Co-Organizer
2014, 2016	UNC, Candidates' Day Faculty Interviewer
2014	UNC, Pharmaceutics Curriculum Transformation 2nd chair
2014 - 2016	UNC, Scholastic Achievement and Progression Committee
2011 - 2012	OSU, Web Information Committee
2011 - 2014	OSU, Awards and Alumni Committee
2011 - 2012	OSU, Committees on Committees, College Elected Position
2011	OSU, Poster Judge, College of Pharmacy Research Day

2010 - 2012	OSU, College Diversity Committee
2009 - 2011	OSU, Technology and Education Resources Committee
2009 - 2011	OSU, Web Page Development

Division Activities

2023 - Pres	UNC, Faculty Search Committee, Chair
2023 - Pres	UNC, Lai Lab Search Committee (2 staff positions)
2022	UNC, Cancer Nanotechnology Strategic Planning, Chair
2021	UNC, Faculty in Training (FIT) Series
2020	UNC, F-series Brown-Bag Lunch Series
2020 - 2022	UNC, DPMP Graduate Recruitment Webinar Organizer
2019	UNC, Young Investigator Grant Workshop
2018 - 2020	UNC, Open Position Search Committee, Chair
2016 - 2019	UNC, Graduate Curriculum Committee
2016	UNC, Graduate Self-Study Committee
2015 - 2016	UNC, Open Position Search Committee
2015 - 2016	UNC, Division Chair Search Committee
2011 - 2014	OSU, Division Webpage Developer
2009 - 2010	OSU, Quarter to Semester: Graduate Studies
2010	OSU, Quarter to Semester: PharmD Studies
2010 - 2014	OSU, Graduate Recruitment Chair

AFFILIATIONS

2018 – Pres	Adjunct Faculty, Department of Microbiology and Immunology, UNC-CH
2014 - Pres	Affiliated Faculty, Comparative Medicine Institute, North Carolina State University
2014 - Pres	Affiliated Faculty, Dept. Biomedical Engineering, University of North Carolina, CH
2012 – 2014	Member, Center for Microbial Interface Biology, The Ohio State University
2010 - 2014	Graduate Faculty, Dept. Biomedical Engineering, College of Eng, The Ohio State University
2009 - 2014	Graduate Faculty, Biophysics Program, The Ohio State University
2010 - 2014	Graduate Faculty, Molecular, Cellular and Developmental Biology, The Ohio State University
2010 - 2014	Adjunct Member, Department of Chemical and Biomolecular Engineering, OSU
2009 - 2010	Associate Member, Dorothy M. Davis Heart and Lung Research Institute, OSU Med Center
2010 - 2011	Associate Member, OSU Comprehensive Cancer Center