HIGH POINT UNIVERSITY FRED WILSON SCHOOL OF PHARMACY
Curriculum Vitae

NAME — Cale D. Fahrenholtz, Ph.D.

CURRENT ACADEMIC TITLE — Assistant Professor

ADDRESS — Department of Basic Pharmaceutical Sciences
High Point University, Fred Wilson School of Pharmacy
One University Parkway
High Point, NC 27268
(336) 841-9813 (office)
E-mail: cale@highpoint.edu

EDUCATION

2002-2006 — University of Wisconsin, School of Pharmacy
Madison, WI
B.S. Pharmacology and Toxicology

2008-2013 — University of Miami, Miller School of Medicine
Miami, FL
Ph.D. Molecular and Cellular Pharmacology

Research Advisor: Kerry L. Burnstein, Ph.D.

Dissertation: Evaluation of Insulin-like Growth Factor Receptor 1 Inhibition as a Treatment for Prostate Cancer: Preclinical Efficacy and Resistance

POSTDOCTORAL TRAINING

2014-2017 — Postdoctoral Fellow, Wake Forest School of Medicine
Department of Cancer Biology
Winston-Salem, NC

Research Advisor: Ravi N. Singh, Ph.D.

Research Project: Development of nanomaterials-based approaches for the detection and treatment of cancer

EMPLOYMENT

Academic Appointments

High Point University, Fred Wilson School of Pharmacy

2019-Present — Assistant Professor, Department of Basic Pharmaceutical Sciences

2019-Present — Graduate School Faculty

Professional Experience

2006-2008	Associate Research Specialist, Department of Medical Sciences, School of Veterinary Medicine, University of Wisconsin, Madison, WI. Research Project: Development of cell-based therapies for treatment of demyelinating disorders.
2017-2019	Research Associate, Department of Cancer Biology, Wake Forest School of Medicine, Winston-Salem, NC. Research Project: Silver nanoparticle therapy for the treatment of cancer.

ACADEMIC SERVICE

Departmental Service

2019-2021 2024-present	Academic and Professional Conduct Committee *Member* (2019-2020, 2025-present) *Chair* (2020-2021, 2024-2025)
2019-present	Cryostorage Facility at Fred Wilson School of Pharmacy *Manager*
2020-2021	Pharmaceutical Science Undergraduate Research Program Task Force *Member*
2020-2021 2023-present	Admissions Committee *Member* (2020-2021, 2023-2024) *Vice-Chair* (2024-2025) *Chair (2025-present)*
2021-2022	Faculty Recruitment Committee– (Cardiovascular Pharmacology, Basic Pharmaceutical Sciences) *Member* (2021) *Chair* (2022)
2021-present	FWSOP Representative for Undergraduate Research and Creative Works *Liaison*
2021-2022	Awards & Ceremonies Advisory Committee *Member*
2021-2023	Assessment & Outcomes Committee *Vice-Chair* (2021-2022) *Chair* (2022-2023)
2021-2022	Search Committee (Assistant/Associate Dean of Student and Professional Affairs) *Member*

2022	Student Absence Task Force *Member* (2022)
2022-2023	Strategic Planning Committee *Member* (2022-2023)
2022-2023	Curriculum Committee *Member* (2022-2023)
2022-2023	ACPE Accreditation Standards 24 and 25, Interim Report *Member* (2022) *Team Leader* (2023)
2024-2025	Faculty Search Committee (3 faculty positions) *Member* (2024-2025)
2024-present	ACPE Self-Study: Resources, Infrastructure, and Planning *Chair*

University Service

2020-2021	Member, Safety Steering Committee
2021-2024	Member, High Point University Undergraduate Research and Creative Works Committee
2024-present	Faculty Senate, Fred Wilson School of Pharmacy Representative
2024-present	Member, Graduate and Professional Programs

EXTRAMURAL SERVICE

National Service

2020-2021 2025-present	Member, AACP Volwiler Research Achievement Award Committee
2022-present	AACP Awards Committee, Biological Sciences Section *Member* (2022-2024) *Chair* (2024-2025)
2023-2024	Member, AACP Research Committee, Biological Sciences Section
2024-present	American Association of Colleges of Pharmacy Delegate *Alternate* (2024-2025) *Delegate* (2025-present)

Journal Reviewer Board

Antioxidants

Journal Reviewer (ad hoc)

International Journal of Cancer and Clinical Research
International Journal of Oncology Research
International Journal of Nanomedicine
Journal of Ovarian Research
Nanomaterials
European Journal of Pharmaceutical Sciences
Pharmaceutics
Journal of Precision Medicine
International Journal of Molecular Sciences
Cancers
Molecules
Inorganic and Nano-Metal Chemistry
Antioxidants
Clinical and Translational Medicine
Anti-cancer Agents in Medicinal Chemistry
Cells
Basic and Clinical Pharmacology and Toxicology
Cancer Letters
Pharmaceuticals
Journal of Controlled Medicine
Journal of Xenobiotics

Editorial Board

Special Issue: Application Prospects of Nanomedicine in Cancer
Journal of Precision Medicine

Grant Reviewer

Irish Research Council, 2021 Laureate Awards

AACP New Investigator Award, 2023, Biological Sciences Section

AACP New Investigator Award, 2024, Biological Sciences Section

KWF Kankerbestrijding – Dutch Cancer Society (DCS), 2025

PROFESSIONAL MEMBERSHIPS

2014-Present	American Association for Cancer Research (AACR)
2014-2018	Materials Research Society (MRS)
2019-Present	Council on Undergraduate Research (CUR)
2019-Present	American Association of Colleges of Pharmacy (AACP)

2022-Present	Phi Lambda Sigma National Pharmacy Leadership Society

HONORS AND AWARDS

2008	T32 Doctoral Trainee in Cardiovascular Signaling, NIH/NHLBI
2009	Preparing Future Faculty Training Program, University of Miami, Miami, FL
2014	T32 Postdoctoral Fellowship in Cancer Biology, Transition to Independence Award, NIH/NCI
2015	NextProf Future Faculty Workshop – Diversifying Academia, University of Michigan, Ann Arbor, MI
2015	AACR Translational Cancer Research for Basic Scientists Workshop, Boston, MA
2017	AACR Scholar-in-Training Award – AACR-NCI-EORTC International Conference of Molecular Targets and Cancer Therapeutics, Philadelphia, PA
2018	AACR Early-career Hill Day, Washington, D.C.
2022	Selected as inaugural member of Epsilon Omicron Chapter of Phi Lambda Sigma Pharmacy Leadership Society
2025	SSHP Mentor of the Month, November

GRANT FUNDING

Completed Awards

Flash Grant (**Fahrenholtz, PI**) 5/01/2024 - 4/30/2025
North Carolina Biotechnology Center $27,500 Direct Cost
Development of artemisinins for malignant peripheral nerve sheath tumors
Malignant peripheral nerve sheath tumors (MPNSTs) are a rare and deadly cancer of the nervous system. There is no curative option other than difficult or often impossible surgical resections. Artemisinins are a class of anti-malarial drugs that show evidence of anti-cancer activities. This proposal outlines the development of artemisinins as a novel therapy for the clinical management of MPNSTs.

Flash Grant (**Fahrenholtz, PI**) 3/01/2023 - 8/29/2024
North Carolina Biotechnology Center $27,500 Direct Cost
Development of silver-based medicine for malignant peripheral nerve sheath tumors
New ways to safely treat established PNSTs and prevent establishment of malignant PNSTs would significantly raise the health and quality of life in NF1 patients. Here we propose using nanotechnology, in this case silver nanoparticles (AgNP), as a treatment for established MPNSTs stratified by absence of functional neurofibromin. We will establish pre-clinical efficacy using relevant in vivo model systems.

New Investigator Award 2022 (**Fahrenholtz, PI**) 03/01/22-08/31/23

American Association of Colleges of Pharmacy $8,000 Direct Cost
Development of silver nanoparticles for the treatment of peripheral nerve sheath tumors.
Neurofibromatosis type 1 suffer from numerous comorbidities, with the most troublesome being the development of neurofibromas with near complete penetrance. The goal of this project is to develop AgNPs as a novel treatment to address significant unmet clinical needs in the treatment and management of neurofibromas.

Flash Grant (Sarkar, PI) 6/01/2022 - 5/31/2023
North Carolina Biotechnology Center $27,500 Direct Cost
The goal of this project is to establish the translational potential of aminopyrimidines as penicillin G enhancers against methicillin-resistant Staphylococcus aureus (MRSA).
(**Fahrenholtz**, Investigator)

Wake Forest Innovations Ignition Funds (**Fahrenholtz, PI**) 09/25/2018-12/31/2018
Wake Forest Innovations $5,000 direct cost
New treatments to address heterogeneity among drug resistant persisters in EGFR-TKI treatment-refractory non-small cell lung cancer
The objective is to develop high-throughput methods for the derivation and screening of EGRF-TKI resistant NSCLC cell lines from single cells to define resistance mechanisms and evaluate novel therapeutics.

T32 CA07948 (Kridell, PI) 02/01/2014-01/31/2016
NIH/NCI
Transition to Independence Fellowship
The objective of this is to provide trainees support in basic, translational or clinical research. Based on the K99 mechanism, this support facilitates the transition towards an independent, academic career in cancer research
(**Fahrenholtz**, Postdoctoral Fellow)

T32 HL00718831A1 (Potter, PI) 07/01/2008-06/30/2011
NIH/NHLBI
Training Program in Cardiovascular Signaling
The objective of to train fellows in basic science research relevant to cardiopulmonary and renal responses to stress.
(**Fahrenholtz**, Graduate Trainee)

PATENT

Applied for

June 2021; Patent Application US 2021/0186888 A1. “Nanoparticle compositions for cancer treatment.” (*Describes a method for using silver nanoparticles to treat cancers identified by expression of the transcription factor ZEB1 above a defined threshold*)

BIBLIOGRAPHY

Peer-Reviewed Publications

1. Larsen EC, Kondo Y, **Fahrenholtz CD**, Duncan ID. 2008. Generation of cultured oligodendrocyte progenitor cells from rat neonatal brains. *Curr Prot Stem Cell Bio*, Chapter 2: Unit 2D.1.1-2D.1.13. PMID: 18729048

2. Rao S, Lyons LS, **Fahrenholtz CD**, Wu F, Farooq A, Balkan W, Burnstein KL. 2012. A novel nuclear role for the Vav3 nucleotide exchange factor in androgen receptor coactivation in prostate cancer. *Oncogene*. 31(6): 716-727. PMID: 21765461

3. Peacock SO, **Fahrenholtz CD**, Burnstein KL. 2012. Vav3 enhances androgen receptor splice variant activity and is critical for castration-resistant prostate cancer growth and survival. *Mol Endocrinol*. 26 (12): 1967-1979. PMID: 23023561

4. **Fahrenholtz CD**, Beltran PJ, Burnstein KL. 2013. Targeting IGF-1R with ganitumab inhibits tumorigenesis and increases durability of response to androgen-deprivation therapy in VCaP prostate cancer xenografts. *Mol Cancer Ther*. 12(4); 394-404. PMID: 23348048

5. **Fahrenholtz CD**, Rick FG, Garcia MI, Zarandi M, Cai RZ, Block NL, Schally AV, Burnstein KL. 2014. Preclinical efficacy of growth hormone-releasing hormone antagonists for androgen-dependent and castration-resistant prostate cancer. *Proc Nat Acad Sci*. 111(3): 1084-1809. PMID: 24395797

6. **Fahrenholtz CD**, Greene AM, Beltran PJ, Burnstein KL. 2014. A novel calcium-dependent mechanism of acquired resistance to IGF-1 receptor inhibition in prostate cancer cells. *Oncotarget*. 5(19): 9007-9021. PMID: 25344862

7. **Fahrenholtz CD**, Hadimani M, King SB, Torti SV, Singh RN. 2015. Targeting breast cancer with sugar-coated carbon nanotubes. *Nanomedicine (Lond)*. 10(16):2481-97. PMID:26296098

8. Eldridge B, Bernish B, **Fahrenholtz CD**, Singh R. 2016. Photothermal therapy of glioblastoma multiforme using multiwalled carbon nanotubes optimized for diffusion in extracellular space. *ACS Biomater Sci Eng*. 2(6): 963-976. PMID: 27795996

9. **Fahrenholtz CD**, Ding S, Bernish BW, Wright ML, Zheng Y, Gross MD, Bierbach U, Singh R. 2016. Design and cellular studies of a carbon nanotube-based delivery system for a hybrid platinum-acridine anticancer agent. *J Inorg Biochem*. 165: 170-180. PMID: 27496614

10. Zheng Y, **Fahrenholtz CD**, Hackett CL, Ding S, Day CS, Dhall R, Marrs GS, Gross MD, Singh R, Bierbach U. 2017. Large-pore functionalized mesoporous silica nanoparticles as drug delivery vector for a highly cytotoxic hybrid platinum-acridine anticancer agent. *Chem Eur J*. 23(14): 3386-3397. PMID: 28122141

11. Eldridge BN, Xing F, **Fahrenholtz CD**, Singh R. 2017. Evaluation of multiwalled carbon nanotube cytotoxicity in cultures of human brain microvascular endothelial cells grown on plastic or basement membrane. *Toxicol In Vitro*. 41: 223-231. PMID: 28285150

12. **Fahrenholtz CD**, Swanner J, Ramirez-Perez M, Singh R. 2017. Heterogeneous responses of ovarian cancer cells to silver nanoparticles as a single agent and in combination with cisplatin. *J Nanomater*. Article ID 5107485. PMID: 30034459

13. Zhao N, Peacock SO, Lo CH, Heidman LM, Rice MA, **Fahrenholtz CD**, Greene AM, Magani F, Copello VA, Martinez MJ, Zhang Y, Daaka Y, Lynch CC, Burnstein KL. 2019. Arginine vasopressin receptor 1a

is a therapeutic target for castration-resistant prostate cancer*. Sci Transl Med*. June 26; 11(498). PMID: 31243151.

14. Swanner J, **Fahrenholtz CD**, Tenvooren I, Bernish BW, Sears JJ, Hooker A, Furdui C, Alli E, Li W, Donati GL, Cook KL, Vidi PA, Singh R. 2019. Silver nanoparticles selectively treat triple negative breast cancer cells without affecting non-malignant breast epithelial cells in vitro and in vivo. *FASEB Bioadvances.* 1(10): 639–660.

15. Deming M, King A, Coover R, **Fahrenholtz CD**, Sarkar A. 2021. Phenylindolylmethyldiaminopyrimidines (PIDAPs) as potent antimicrobials against Staphylococcus aureus. *ChemRxiv.* January 18, V1.

16. Sears J, Swanner J, **Fahrenholtz CD**, Snyder C, Rohde M, Levi-Polyachenko N, Singh R. 2021. Combined photothermal and ionizing radiation sensitization of triple-negative breast cancer using triangular silver nanoparticles. *Int J Nanomedicine*. Feb 5; 16:851-865.

17. Snyder CM, Rohde MM, **Fahrenholtz CD**, Swanner J, Sloop J, Donati DL, Furdui CM, Singh R. 2021. Low Doses of Silver Nanoparticles Selectively Induce Lipid Peroxidation and Proteotoxic Stress in Mesenchymal Subtypes of Triple-Negative Breast Cancer. *Cancers*. 13(16): 4217.

18. Alewine G, Knight J, Ghantae A, Mamrega C, Attiah B, Coover RA, **Fahrenholtz CD**. 2022. Silver Nanoparticles Selectively Treat Neurofibromatosis Type 1-Associated Malignant Peripheral Nerve Sheath Tumors in a Neurofibromin-Dependent Manner. *J Precision Medicine.* 12(7): 1080.

19. Attiah B, Alewine G, Easter MK, Coover RA, **Fahrenholtz CD.** 2024. Silver nanoparticles selectively treat neurofibromatosis type 1-associated plexiform neurofibroma cells at doses which do not affect patient-matched Schwann cells. *Pharmaceutics.* 16(3), 371.

20. Snyder CM, Mateo B, Patel K, **Fahrenholtz CD**, Rohde MM, Carpenter R, Singh RN. 2024. Enhancement of Triple-Negative Breast Cancer-Specific Induction of Cell Death by Silver Nanoparticles by Combined Treatment with Proteotoxic Stress Response Inhibitors. *Nanomaterials*. 14(19), 1564.

21. HM Duensing, JM Dixon, OR Hunter, NC Graves, NC Smith, AJ Tomes, **Fahrenholtz CD**. 2025. Preclinical Evaluation of Repurposed Antimalarial Artemisinins for the Treatment of Malignant Peripheral Nerve Sheath Tumors. *Int J Mol Sci.* 26(14), 6628.

INVITED SPEAKING ENGAGEMENTS

1. Evaluation of IGF-1R inhibition as a treatment for prostate cancer: pre-clinical efficacy and resistance. The Scripps Research Institute. Dept. of Cancer Biology. Jupiter, FL. September 26, 2013.

2. Evaluation of IGF-1R inhibition as a treatment for prostate cancer: pre-clinical efficacy and resistance. Wake Forest University School of Medicine. Dept. of Cancer Biology. Winston-Salem, NC. November 22, 2013.

3. Development of glucosamine functionalized multi-walled nanotubes for breast cancer diagnosis. Materials Research Society Fall Meeting. Boston, MA. December 3, 2014.

4. Approaches to assess, treat, and target difficult or refractory cancers. High Point University Fred Wilson School of Pharmacy. High Point, NC. January 28, 2019.

5. Guest Speaker at Molecular and Cellular Pharmacology Open House. University of Miami – Miller School of Medicine. Miami, FL. August 20, 2019.

6. Silver nanoparticles for the use in precision medicine-based treatments for cancer. High Point University Department of Biology Guest Seminar Series. High Point, NC. October 4, 2019.

7. Development of silver nanoparticles as a treatment for cancer and as a prophylactic for malignancy. High Point University Fred Wilson School of Pharmacy, Faculty Research Seminar Series. High Point, NC. August 28, 2020.

8. Developing silver nanoparticles as medicine: new methods to treat cancer and avert future malignancies. Winthrop University, Biology Research Series. Rock Hill, SC. March 17, 2021.

9. Development of oxidative stress inducers as a treatment for malignant peripheral nerve sheath tumors (MPNSTs). North Carolina Biotechnology Center Flash Grant Showcase. Durham, NC. February 25, 2025

PRESENTATIONS AT PROFESSIONAL MEETINGS

1. Burnstein KL, Lyons, LS, Rao S, **Fahrenholtz CD**, Farooq A, W Balkan. Vav3/Rac1 signaling promotes castration-resistant prostate cancer. Department of Defense Innovative Minds in Prostate Cancer Today (IMPaCT), 2011. Orlando, FL. (selected for oral presentation)

2. **Fahrenholtz CD**, Beltran P, Calzone F, KL Burnstein. Ganitumab (AMG 479) inhibits the development and progression of castration-resistant VCaP human prostate cancer xenografts. AACR-NCI-EORTC Molecular Targets and Cancer Therapeutics, 2011. San Francisco, CA.

3. Peacock SO, **Fahrenholtz CD**, Burnstein KL. Exploitation of androgen receptor splice variant signaling by guanine nucleotide exchange factor Vav3 in castration-resistant prostate cancer. AACR Annual Meeting, 2012. Chicago, IL.

4. Peacock SO, **Fahrenholtz CD**, Burnstein KL. Vav3 enhances androgen receptor splice variant activity and is critical for castration resistant prostate cancer growth and survival. SBUR Fall Symposium, 2012. Miami, FL.

5. **Fahrenholtz CD**, Beltran PJ, Burnstein KL. Targeting IGF-1R with ganitumab inhibits tumorigenesis and increases durability of response to androgen-deprivation therapy in VCaP prostate cancer xenografts. SBUR Fall Symposium, 2012. Miami, FL.

6. Peacock SO, **Fahrenholtz CD**, Burnstein KL. Vav3 enhances androgen receptor splice variant activity and is critical for castration resistant prostate cancer growth and survival. AACR Annual Meeting, 2013. Washington, DC. (selected for oral presentation)

7. Rick FG, **Fahrenholtz CD**, Garcia MI, Block NL, Schally AV, Burnstein KL. Preclinical efficacy of growth hormone-releasing hormone antagonist MIA-602 for androgen-dependent and castration-resistant human prostate cancer. SBUR 10th World Congress on Urological Reserach, 2013. Nashville, TN.

8. Rick FG, **Fahrenholtz CD**, García MI, Block NL, Schally AV, Burnstein KL. Preclinical efficacy of growth hormone-releasing hormone antagonist MIA-602 for androgen-dependent and castration-resistant human prostate cancer. Genitourinary Cancers Symposium, 2014. San Francisco, CA.

9. **Fahrenholtz CD**, Singh RN. Development of glucosamine functionalized multi-walled nanotubes for breast cancer targeting applications. Materials Research Society Fall Meeting. 2014. Boston, MA. (selected for oral presentation)

10. Swanner JL, **Fahrenholtz CD**, Singh RN. Systemic delivery of silver nanoparticles and targeting of the folate receptor alpha for the treatment of triple-negative breast cancer. AACR – Advances in Breast Cancer Meeting. October 2015. Bellevue, WA.

11. **Fahrenholtz CD**, Ding S, Bernish BW, Wright, ML, Bierbach U, Singh RN. Self-assembling platinum-acridine loaded carbon nanotubes for triple-negative breast cancer chemotherapy. AACR – Advances in Breast Cancer Meeting. October 2015. Bellevue, WA.

12. Eldridge B, Bernish B, **Fahrenholtz CD**, Singh RN. Photothermal therapy of glioblastoma multiforme using multiwalled carbon nanotubes optimized for diffusion in extracellular space. AACR: Engineering and Physical Sciences in Oncology. June 2016. Boston, MA.

13. Swanner JL, Tenvooren I, Bernish BW, **Fahrenholtz CD**, Vidi PA, Cook KL, Singh RN. Silver nanoparticles exhibit subtype specific cytotoxic and therapeutic effects in claudin low breast cancer in vitro and in vivo. AACR: Engineering and Physical Sciences in Oncology. June 2016. Boston, MA.

14. **Fahrenholtz CD**, Swanner J, Sears J, Cook K, Vidi P, Singh R. A mesenchymal subset of cancers with elevated Zeb1 expression is sensitive to low doses of silver nanoparticles. AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics. October 2017. Philadelphia, PA.

15. Rohde M, Snyder C, Holmila R, **Fahrenholtz CD**, Sloop J, Donati G, Furdui C, Singh R. Production of fibronectin sensitizes EGFR-TKI resistant lung cancers to silver nanoparticle induced endoplasmic reticulum stress. American Chemical Society Virtual Meeting & Expo. August 2020. Virtual Meeting.

16. Snyder C, Rohde M, Fahrenholtz CD, Swanner J, Cook K, Sloop J, Donati G, Furdui C, Singh R. Identification molecular signatures predictive of sensitivity of breast cancer cells to silver nanoparticles. American Chemical Society Virtual Meeting & Expo. August 2020. Virtual Meeting.

17. Alewine G, Ghantae A, Mamrega C, Knight JL, Attiah B, Coover RA, **Fahrenholtz CD**. Silver nanoparticles are selectively cytotoxic to neurofibromin 1 deficient peripheral nerve sheath tumors. American Association of Cancer Research Annual Meeting. April 2022. New Orleans, LA.

18. Alewine G, Ghantae A, Mamrega C, Coover RA, Knight J, Attiah B, **Fahrenholtz CD**. Development of silver nanoparticles as a therapy for neurofibromin 1 deficient peripheral nerve sheath tumors. National Council on Undergraduate Research Annual Meeting. April 2022. Virtual Meeting.

19. Alewine G, Ghantae A, Mamrega C, Coover RA, Knight J, Attiah B, **Fahrenholtz CD**. Development of silver nanoparticles as a therapy for neurofibromin 1 deficient peripheral nerve sheath tumors. High Point University Research and Creativity Symposium. April 2022. High Point, NC.

20. Attiah B, Alewine G, Easter MK, **Fahrenholtz CD.** Silver Nanoparticles Selectively Treat Plexiform Neurofibroma at Doses Which Do Not Affect Patient-Matched Non-Cancerous Schwann Cells. High Point University Research and Creativity Symposium. April 2023. High Point, NC.

21. Attiah B, Alewine G, Easter MK, Coover RA, **Fahrenholtz CD**. Silver nanoparticles selectively treat plexiform neurofibroma compared to patient-matched non-cancerous Schwann Cells. Children's Tumor Foundation Annual Meeting. June 2023. Scottsdale, AZ.

22. Attiah B, Alewine G, Easter MK, Coover RA, **Fahrenholtz CD**. Silver nanoparticles selectively treat neurofibromatosis type 1-associated malignant peripheral nerve sheath tumors. American Association of Colleges of Pharmacy – Pharmacy Education Meeting. July 2023. Aurora, CO.

23. Easter MK, Dixon J, Alewine G, Attiah B, Coover R, **Fahrenholtz CD**. Evaluation of oxidative stress inducing agents for the treatment of neurofibromatosis type 1-associated peripheral nerve sheath tumors. State of North Carolina Undergraduate Research and Creativity Symposium. November 2023. Wingate, NC.

24. Thornton, P, Gough M, Donaldson R, Jameson S, Dzamba K, Adams E, Nwachukwu A, Durhan D, Schmale G, Alewine G, Attiah B, Cavanaugh A, **Fahrenholtz CD**, Coover RA. A Multidiscipline Approach to Neurofibromatosis Type 1. High Point University Research and Creativity Symposium. April 2024. High Point, NC.

25. Hunter O, Duensing H, Dixon J, Graves N, **Fahrenholtz CD**. Evaluation of Novel Therapeutics for the Treatment of Peripheral Nerve Sheath Tumors. High Point University Research and Creativity Symposium. April 2024. High Point, NC.

26. Tomes A, Duensing H, Dixon J, Hunter O, Graves N, Smith N, **Fahrenholtz CD**. Repurposing artemisinins for the treatment of malignant peripheral nerve sheath tumors. State of North Carolina Undergraduate Research and Creative Symposium. December 2024. Virtual.

27. Tomes A, Duensing H, Hunter O, Dixon J, Graves N, Smith N, Smith I, **Fahrenholtz CD**. Repurposing anti-malarials for the selective treatment of malignant peripheral nerve sheath tumors. High Point University Research and Creativity Symposium. April 2025. High Point, NC.

28. Duensing H, Dixon J , Graves N, Hunter O, Tomes AJ, Smith I, Smith N, **Fahrenholtz CD**. Anti-malarial artemisinins: A Novel Approach for the Treatment of Malignant Peripheral Nerve Sheath Tumors. American Association of Colleges of Pharmacy – Pharmacy Education Meeting. July 2025. Chicago, IL.

DIDACTIC/SYSTEMIC INSTRUCTION

University of Miami Miller School of Medicine,
Discussion Group Leader, 1st year Medical Students
Basics of pharmacology (PK/PD and the autonomic nervous system)
2008-2012

High Point University Fred Wilson School of Pharmacy
Lecturer, PBS 8000: Integrated Pharmaceutical Sciences III
2018-2019
2023-present

High Point University Fred Wilson School of Pharmacy
Course Coordinator, PBS 7040: Introduction to Pharmacology
2019-Present

High Point University Fred Wilson School of Pharmacy
PBS 7300: Medicinal Chemistry and Pharmacology
Lecturer 2020-2024
Course Coordinator 2025

High Point University Fred Wilson School of Pharmacy
Lecturer, PBS 7330: Immunology
2020-2021
2024-Present

High Point University Fred Wilson School of Pharmacy
Course Co-coordinator, PCS 8040: Pharmacy Management
2020-2021

High Point University Fred Wilson School of Pharmacy
Course Creator and Course Coordinator, PEL8020: Pharmacologic Principles of Oncology
2021-2024
2026

High Point University Fred Wilson School of Pharmacy
Instructor, PBS 7010: Intro to Medicinal Chemistry Laboratory
2021-2022

High Point University Fred Wilson School of Pharmacy
Preceptor, P4 Rotation, In-Depth Research Experience
2022

High Point University Fred Wilson School of Pharmacy
Course Co-Coordinator, PCS8010: Interprofessional Education I
2022-Present

High Point University Fred Wilson School of Pharmacy
Course Co-Coordinator, PCS8310: Pharmacy Law and Ethics
2023-Present

High Point University Fred Wilson School of Pharmacy
Lecturer, PBS7000, Introduction to Medicinal Chemistry
2024-Present

High Point University Fred Wilson School of Pharmacy
Mentor and instructor, PEL8030, Directed Research
2025-Present

MENTORING RELATIONSHIPS

Undergraduate Students

2024-Present	Isabella Smith High Point University Undergraduate Research Project
2024-2025	Andersen Josiah Tomes High Point University Undergraduate Research Project Published: (*Duensing et al. Int J Mol Sci 2025)* Awards*: Natural Science Fellow Supply Grant*
2023-2025	Jalen Dixon High Point University Undergraduate Research Project Published: (*Duensing et al. Int J Mol Sci 2025)* Awards*: Natural Science Fellow Supply Grant*
2023-2025	Heather Duensing High Point University Undergraduate Research Project Published: (*Duensing et al. Int J Mol Sci 2025)*
2023-2025	Owen Hunter High Point University Undergraduate Research Project Published: (*Duensing et al. Int J Mol Sci 2025)* Awards*: Natural Science Fellow Supply Grant*
2022-2023	Mary-Kate Easter High Point University Undergraduate Research Project Published*: (Attiah B et al. Pharmaceutics 2024)*
2021-2023	Bashnona Attiah High Point University Undergraduate Research Project Published: (*Alewine G et al. J Precision Med 2022)* *(Attiah B et al. Pharmaceutics 2024)* *Awards: Natural Science Fellow Supply Grant*
2021-2023	Garrett Alewine High Point University Undergraduate Research Project Published: (*Alewine G et al. J Precision Med 2022)* *(Attiah B et al. Pharmaceutics 2024)* *Awards: Natural Science Fellow Supply Grant*

2020-2021	Christina Mamrega High Point University Undergraduate Research Project Published: (*Alewine G et al. J Precision Med 2022)*
2017-2018	Boning Chen Wake Forest University Undergraduate Research Project
2016-2017	Maria-Ramirez Perez Salem College Undergraduate Research Project Published: (*Fahrenholtz CD et al. J Nanomater. 2017)*
2015-2016	Mariah Wright, MD Wake Forest University Undergraduate Research Project Published: (*Fahrenholtz CD et al. J Inorg Biochem 2016)*

Professional Student (Pharm.D.)

2025-Present	Madison Waltman High Point University Fred Wilson of Pharmacy Graduate Research Project
2025-Present	Heather Duensing High Point University Fred Wilson of Pharmacy Graduate Research Project Published: (*Duensing et al. Int J Mol Sci 2025)*
2024-Present	Nickalus Smith High Point University Fred Wilson School of Pharmacy Graduate Research Project Published: (*Duensing et al. Int J Mol Sci 2025)*
2023-2024	Kristina Dzamba High Point University Fred Wilson School of Pharmacy Graduate Research Project
2023-Present	Nicolina Graves High Point University Fred Wilson School of Pharmacy Graduate Research Project Published: (*Duensing et al. Int J Mol Sci 2025)*
2021-2022	Jerrica Knight, PharmD High Point University Fred Wilson School of Pharmacy Published: (*Alewine G et al. J Precision Med 2022)*

2020-2021	Adithya Ghantae High Point University Fred Wilson School of Pharmacy Published: (*Alewine G et al. J Precision Med 2022)*

Graduate Student (M.S.)

2014-2016	James Jerod Sears, MS Wake Forest University Biomedical Sciences Honors/Awards: *Sigma Xi Grant in Aid of Research* Published: (*Sears JJ et al. Int J Nanomed 2021; Swanner J et al. FASEB bioAdv 2019)*

Graduate Students (Ph.D)

2015-2019	Monica McMahon Rohde, PhD Wake Forest University School of Medicine Graduate Studies
2013	Kelly Hoye University of Miami Miller School of Medicine Graduate Studies
2012	Yvonne Puplampu-Dove, PhD University of Miami Miller School of Medicine Graduate Studies
2012	Guoxin Ni, PhD University of Miami Miller School of Medicine Graduate Studies
2012	Junior Tayou, PhD University of Miami Miller School of Medicine Graduate Studies
2011-2013	Meghan Rice, PhD University of Miami Miller School of Medicine Graduate Studies

COMMUNITY ACTIVITES AND SERVICE

2017-2020	Ronald McDonald House of Winston-Salem Meal prep for all current guests
2018-Present	H.O.P.E. of Winston-Salem Volunteer, Food Distribution and Delivery
2022	D-Up Washington Drive Resource and Enrichment Center, Volunteer, High Point, NC