BETHANY A. KERR, PH.D.

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EDUCATION

B.E. in Biomedical Engineering and Chemical Engineering, double major 1998 - 2002
Vanderbilt University, Nashville, TN

Ph.D. in Tissue Engineering and Regenerative Medicine 2002 - 2008
Thomas Jefferson University, Philadelphia, PA
Thesis Advisor: Motomi Enomoto-Iwamoto, Ph.D., D.D.S.
Thesis Title: The Roles of the Rho GTPase Protein Rac-1 in Cell Morphology and Function during Chondrocyte Maturation

Postdoctoral Research Fellow 2008 - 2010
Department of Molecular Cardiology, Lerner Research Institute
Cleveland Clinic, Cleveland, OH
Research Advisor: Tatiana Byzova, Ph.D.
Research Project: Platelets in Prostate Cancer Bone Pre-Metastatic Niche Formation and Angiogenesis

PROFESSIONAL APPOINTMENTS

Lerner Research Institute, Cleveland Clinic, Cleveland, OH

Research Associate 2011 - 2013
Department of Molecular Cardiology

Adjunct Assistant Professor 2013 - 2015
Department of Molecular Medicine
Cleveland Clinic Lerner College of Medicine of Case Western Reserve University

Project Staff 2013 - 2015
Department of Molecular Cardiology

Associate Member 2014 - 2015
Case Comprehensive Cancer Center

Wake Forest School of Medicine, Winston-Salem, NC

Assistant Professor 2016 - Present
Department of Cancer Biology

Member 2016 - Present
Wake Forest Baptist Comprehensive Cancer Center

Member 2016 - Present
Molecular and Cellular Biosciences Program
Wake Forest University Graduate School

Assistant Professor 2016 - Present
Department of Orthopaedic Surgery

Assistant Professor 2017 - Present
Department of Urology

Assistant Professor 2017 - Present
Virginia Tech-Wake Forest University School for Bioengineering and Sciences

LEADERSHIP TRAINING

Cleveland Clinic Leadership Academy	2013 - 2015
USBJI Young Investigator Workshop	2017
Wake Forest CTSI Translational Research Academy	2017 - 2019
Early Career Development Program for Women	2019

RESEARCH TRAINING

Undergraduate Research Volunteer 2000 - 2001
Biomedical Engineering Department, Vanderbilt University, Nashville, TN
Research Advisor: Robert Roselli, Ph.D.
Research Project: Characterized vesicular transport across lung endothelial cell using fluorescently labeled dextran

Basic Science Research Intern Summer 2001
Cellular Biochemistry Section, Lead Discovery Department
AstraZeneca Pharmaceuticals, Wilmington, DE
Research Advisor: Nathan Spears, Ph.D.
Research Project: Designed ELISA-based assays to determine the effectiveness of proprietary compounds in inhibiting the secretion of APP-β in transfected HEK293 cells

Undergraduate BME Design Project 2001 - 2002
Biomedical Engineering Department, Vanderbilt University, Nashville, TN
Research Advisor: Todd Giorgio, Ph.D.
Research Project: Genetic Identification of Hazardous Indoor Air Organisms

Clinical Trials Management Research Intern Summer 2002
AstraZeneca Pharmaceuticals, Wilmington, DE
Supervisor: Jennifer Varquez, R.N.
Project: Managed the regulatory documentation for submission to the FDA to obtain drug approval after a phase II clinical trial

INSTITUTIONAL SERVICE

School of Medicine

Member, Cancer Biology Graduate Program	2016 - Present
Interviewer, Molecular and Cellular Biosciences Ph.D. Program Recruitment	2016 - Present
Associate Faculty, Women in Medicine and Science	2016 - Present
Member, Radiation Safety Committee	2016 - 2021
Member, Chemical Safety Committee	2016 - Present
Interviewer, Medical School Recruitment	2016 - Present
Member, Molecular Medicine and Translational Sciences Graduate Program	2017 - Present
Faculty Advisor, Wake Up to Science Graduate Student Group	2018 - Present
Reviewer, Medical Student Research Program	2020 - Present
Reviewer, EICS/ENGAGED Summer Program	2021 - Present

Comprehensive Cancer Center

Member, Prostate Cancer Center of Excellence	2016 - Present
Member, Genitourinary Disease Oriented Team	2016 - Present
Member, Lung Disease Oriented Team	2016 - Present
Member, Center for Redox Biology and Medicine	2016 - Present
Organizer, Metastasis Interest Group	2016 - 2018
Chair, Tumor Tissue and Pathology Shared Resource Advisory Committee	2017 - Present
Chair, Flow Cytometry Shared Resource Advisory Committee	2017 - Present
Ad hoc Reviewer, Internal Pilot Awards	2018 - Present

Cancer Biology Department

Ad hoc Committee on MS to PhD Transition 2016
Curriculum Committee 2017 - Present

EXTRAMURAL APPOINTMENTS AND SERVICE

National Funding Agency Review

NIH: Fellowship: Surgical Sciences, Biomedical Imaging, and Bioengineering (SBIB) IRG Ad hoc Member — October 12, 2016, June 15, 2021

NIH: Tumor Microenvironment (TME) IRG, ECR Member — February 23-24, 2017

NSF: Experimental Program to Stimulate Competitive Research (EPSCoR) Research Fellows Competition, Ad hoc Reviewer — 2021

NIH/NCI: Special Emphasis Panel (SEP-3): Prosate, GU, Ovarian, Ad hoc Member — October 21-22, 2021

International Funding Agency Review

Swiss National Science Foundation and Japan Society for the Promotion of Science Joint Research Projects, Ad hoc Reviewer — 2016

Swiss National Science Foundation, Ad hoc Reviewer — 2017 - 2019

INSERM Cancer Plan, French National Alliance for Life and Health Sciences and French National Cancer Institute, Ad hoc Reviewer — 2018

Foundation Review

Prostate Cancer UK, Ad hoc Reviewer — 2018

Breast Cancer Now, Ad hoc Reviewer — 2019

La Caixa Foundation, Ad hoc Reviewer — 2019 - Present

METAvivor, Ad hoc Reviewer — 2021

Editorial Boards

Science Translational Medicine, *Associate Scientific Advisor* — 2019 - 2020

Cells, Tissues, Organs, *Editorial Board Member* — 2019 - Present

Translational Oncology, *Editorial Board Member* — 2020 - Present

Journal Review

Annals of Biomedical Engineering
BMC Cancer
Cancers
Cell Death & Disease
Cells, Tissues, Organs
Communications Biology
eLife
Experimental and Molecular Pathology
Frontiers in Molecular Biosciences
Investigational New Drugs
Journal of Bone Oncology
Journal of Cellular Biochemistry
Journal of Cellular and Molecular Medicine
Journal of Clinical Medicine
Molecular Biology Reports
Molecular Medicine Reports
Oncogene
Oncotarget
OncoTargets and Therapy
PLoS ONE
Scientific Reports
Stem Cells
Stem Cells Translational Medicine
Translational Research
Translational Oncology
Trends in Cancer

bioRxiv, Affiliate (2017-present)

Other

Session Moderator — July 29-31, 2009
Vasculata Workshop, Cleveland, OH

Conference Vice Chair — March 9-10, 2013
Gordon Research Seminar: Paths to a Research Career in Platelet Biology and Hemostasis/Thrombosis
Cell Biology of Megakaryocytes and Platelets Gordon Research Conference, Galveston, TX

Poster Judge — 2019
Mid-Atlantic PREP & IMSD Research Symposium

Reviewer — 2019 - Present
Dr. Jennifer Leigh Ingram Travel Award
Graduate Women in Science- Research Triangle Chapter

Moderator — October 20, 2020
Team 21: Targeting Enzalutamide-Resistant CRPC in Bone Metastasis
Prostate Cancer Foundation Women in Science Team Forum

Moderator — December 3, 2020
Interplay Between the Hematologic System and Solid Tumor Progression Session
American Society of Hematology Scientific Workshop: Interplay between Coagulation and Malignancy

PROFESSIONAL MEMBERSHIPS AND SERVICE

American Association for Cancer Research — 2013
Communications Committee Member, Associate Member Council
Questions Sub-Committee Chair (2015 - 2016)

Society for Basic Urologic Research — 2014
Media Committee Chair (2017 - 2018; 2020 - Present)
Media Committee Vice Chair (2018 - 2019)
Membership Committee (2020 - Present)

Society of Women Engineers — 2002
American Association for the Advancement of Science — 2008
National Postdoctoral Association — 2008
Sigma Xi Honor Society — 2008
North American Vascular Biology Organization — 2010
American Society of Hematology — 2011
American Heart Association — 2011
International Bone and Mineral Society — 2012
Metastasis Research Society — 2016
Cancer and Bone Society — 2020

HONORS AND AWARDS

Hewlett-Packard Employee-Sponsored Academic Merit Scholarship — 1998
Order of the Engineer — 2002
Percival E. and Ethel Brown Foerderer Foundation Fellowship — 2002 - 2003
Thomas Jefferson University Doctoral Student Research Fellowship — 2003 - 2006
Jefferson College of Graduate Studies Alumni Travel Fellowship — 2007
NIH/NCI Ruth L. Kirschstein National Research Service Award — 2011 - 2013
Hot Topic Lecturer at Cell Biology of Megakaryocytes and Platelets Gordon Research Conference — 2011
International Society on Thrombosis and Haemostasis New Investigator Travel Award — 2011
Baxter Young Investigator Award — 2011
Council on Arteriosclerosis, Thrombosis and Vascular Biology Travel Award for Young Investigators — 2012
LRI Molecular Cardiology Department Bernadine Healy Award for Best Presentation — 2012

LRI Postdoctoral Fellow and Research Associate Awards for Excellence in Research, Honorable Mention 2013
American Society of Hematology Abstract Achievement Award 2013
NIH/NCI Pathway to Independence Award 2014 - 2019
Cleveland Clinic Education Institute Certificate
in Essentials of Clinical and Classroom Teaching and Assessment Series 2014
National Center for Regenerative Medicine Cancer Stem Cell Conference Abstract Award 2016
USBJI Young Investigator Workshop Invitee 2017
CTSI Translational Research Academy Scholar 2017
Society for Basic Urologic Research Young Investigator Award 2019

CURRENT FUNDING

NIH/NCI R21 CA249349
(David Soto-Pantoja, PI; Bethany Kerr, Co-I) 4/1/2020 - 2/28/2022
Combinatorial Strategies for the Treatment of Brain Metastasis
The objective of this grant is to test whether CD47 blockade enhances responsiveness to irradiation by reinvigorating CD8+ T cell metabolism enhancing cytolytic activity against cancer cells to treat breast cancer brain metastasis.

Chronic Disease Research Fund 112511
(Tallant and Gallagher, Co-PI; Bethany Kerr, Co-I) 3/1/2021 - 1/31/2023
Effect of Nature's Muscadine Grape Extract
on Breast and Prostate Cancer $2,000,000/year direct costs
The goal is to determine effect of muscadine grape extract on breast cancer cell and tumor growth as a monotherapy and in combination with other chemotherapeutic agents. We will also determine the effect of muscadine grape extract as a possible breast cancer chemo-preventative agent. Phase I/II clinical trials using MGE extract in breast and prostate cancer patients will be performed at WFBCCC.

METAvivor Translational Research Award
(Bethany Kerr, PI) 7/1/2021 - 6/30/2023
Profiling Combinatorial Treatment Response in Early and Late
Bone Metastatic Breast Cancer $250,000 direct costs
The overall objectives of this proposal are to test the efficacy of single or combined antiestrogen and a TKI in the early and late stages of breast cancer bone metastases, to develop biomarkers of treatment response, and prevent the spread of metastatic growth.

COMPLETED FUNDING

NIH/NIAMS Institutional Training Grant T32 AR052273
(Irving Shapiro, PI; Bethany Kerr, Graduate Student) 9/1/2006 - 5/30/2008
Training in Tissue Engineering and Regenerative Medicine $174,039/year direct costs

NIH/NHLBI Institutional Training Grant T32 HL007914
(Edward Plow, PI; Bethany Kerr, Postdoctoral Fellow) 3/15/2010 - 12/31/2010
Training in Vascular Biology and Pathology $191,295/year direct costs

NIH/NCI Ruth L. Kirschstein National Research Service Award F32 CA142133
(Bethany Kerr, PI) 1/1/2011 - 3/15/2013
Molecular Mechanisms of Prostate Cancer Induced Bone Remodeling $116,341/year direct costs

Cleveland Clinic Research Programs Committee for Clinical Research RPC2012-1001
(Maria Mir, PI; Bethany Kerr, Co-PI) 5/10/2012 - 5/10/2013
Platelet Sequestered Tumor Markers in Renal Cell Carcinoma $50,000 direct costs

CTSI Ignition Fund
(Bethany Kerr, PI) 12/20/2016 - 3/10/2017
Development of an Immunocompetent Bone Microenvironment $5,000 direct costs

NIH/NCI R21 CA199628
(Gagan Deep, PI; Bethany Kerr, Co-I) 7/1/2016 - 6/30/2017
Development and Characterization of 3D Organoid Lines from Circulating Tumor Cells of African American Prostate Cancer Patients $129,032/year direct costs

Plastic Surgery Pilot Award
(Tom Smith, PI; Bethany Kerr, Co-I) 7/1/2017 - 6/30/2019
Evaluating the Use of Sub-Atmospheric Pressure to Promote Bone Healing

CTSI Ignition Fund
(Bethany Kerr, PI; Katherine Cook, Co-PI) 1/15/2019 - 4/10/2019
ERα Re-expression to Model Clinically-Relevant Breast Cancer Metastasis $5,000 direct costs

NIH/NCI Pathway to Independence Award K99/R00 CA175291
(Bethany Kerr, PI) 2/1/2014 - 11/30/2019
CD117 Signaling as a Mechanism of Prostate Cancer Metastasis $249,000/year total costs

Elsa U. Pardee Foundation Award
(Bethany Kerr, PI; Ellen Quillen, Co-PI) 12/1/2018 - 4/30/2020
Profiling Cell Composition and Methylation in the Bone Pre-Metastatic Niche $156,374 direct costs

CTSI Pilot Award
(Ellen Quillen, PI; Bethany Kerr, Co-I) 4/1/2019 - 9/30/2020
Reprogram of Methylation Analysis of Bone Cells to Improve High-Throughout Evaluation of Bone Marrow Composition and Gene Expression $40,000 direct costs

SBT Pilot Award
(Bethany Kerr, PI; Masoud Agah, Co-PI) 7/1/2019 - 5/31/2021
Label-Free Microfluidic Enumeration of Circulating Tumor Cells $40,000 direct costs

CTSI Ignition Fund
(Bethany Kerr, PI) 2/26/2021 - 5/31/2021
Clinical Validation of CTCENSE CTC Entrapment Chip $5,000 direct costs

PUBLICATIONS

Peer-Reviewed Publications

$*$ indicates co-first authorship, ††indicates first and corresponding authorship, ‡indicates co-corresponding authorship, †indicates a student or fellow under my supervision

1. Szymczyk, Krysia H, **Bethany A. Kerr**, Theresa A. Freeman, Christopher S. Adams, and Marla J Steinbeck. Involvement of Hydrogen Peroxide in the Differentiation and Apoptosis of Preosteoclastic Cells Exposed to Arsenite. *Biochemical Pharmacology*. 72:761-9. DOI: 10.1016/j.bcp.2006.06.027. 2006.

2. **Kerr, Bethany A**, Tomohiro Otani, Eiki Koyama, Theresa A. Freeman, and Motomi Enomoto-Iwamoto. Small GTPase Protein Rac-1 Is Activated with Maturation and Regulates Cell Morphology and Function in Chondrocytes. *Experimental Cell Research*. 314:1303-12. DOI: 10.1016/j.yexcr.2007.12.029. 2008.

3. **Kerr, Bethany A**, Ranko Miocinovic, Armine K. Smith, Eric A. Klein, and Tatiana V. Byzova. Comparison of Tumor and Microenvironment Secretomes in Plasma and in Platelets during Prostate Cancer Growth in a Xenograft Model. *Neoplasia*. 12(5):388-96. DOI: 10.1593/neo.10166. 2010.

4. West, Xiaoxia Z.*, Nikolay L. Malinin*, Alona A. Merkulova, Miroslava Tischenko, **Bethany A. Kerr**, Ernest C. Borden, Eugene A. Podrez, Robert G. Salomon, and Tatiana V. Byzova. Oxidative Stress Induces Angiogenesis by Activating TLR2 with Novel Endogenous Ligands. *Nature*. 467(7318):972-6. DOI: 10.1038/nature09421. 2010.
Commentaries in Nature Immunology and Science Signaling

5. McCabe, N. Patrick*, **Bethany A. Kerr***, Maria Madajka, Amit Vasanji, and Tatiana V. Byzova. Augmented Osteolysis in SPARC Deficient Mice with Bone Residing Prostate Cancer. *Neoplasia*. 13(1):31-9. DOI: 10.1593/neo.10998. 2011.

6. Feng, Weiyi*, Maria Madajka*, **Bethany A. Kerr***, Ganapati H. Mahabeleshwar, Sidney W. Whiteheart, and Tatiana V. Byzova. A Novel Role for Platelet Secretion in Angiogenesis: Mediating Bone Marrow-derived Cell Mobilization and Homing. *Blood*. 117(14):3893-902. DOI: 10.1182/blood-2010-08-304808. 2011.
Featured on cover; Commentary

7. West, Xiaoxia Z.*, Nahum Meller*, Nikolay L. Malinin, Lalit Deshmukh, Julia Meller, Ganapati H. Mahabeleshwar, Malory E. Weber, **Bethany A. Kerr**, Olga Vinogradova, and Tatiana V. Byzova. Integrin β3 Crosstalk with VEGFR Accommodating Tyrosine Phosphorylation as a Regulatory Switch. *PLoS ONE*. 7(2):e31071. DOI: 10.1371/journal.pone.0031071. 2012.

8. Meller, Julia, Nikolay L. Malinin, Soumya Panigrahi, **Bethany A. Kerr**, Arohi Patil, Yi Ma, Lakshmi Venkateswaran, Igor B. Rogozin, Narla Mohandas, Mohammed S. Ehlayel, Eugene A. Podrez, Javier Chinen, and Tatiana V. Byzova. Novel aspects of Kindlin-3 function in humans based on a new case of leukocyte adhesion deficiency III. *Journal of Thrombosis and Haemostasis*. 10(7):1397-408. DOI: 10.1111/j.1538-7836.2012.04768.x. 2012.

9. **Kerr, Bethany A.**, N. Patrick McCabe, Weiyi Feng, and Tatiana V. Byzova. Platelets Govern Pre-Metastatic Tumor Communication to Bone. *Oncogene*. 32(36):4319-24. DOI: 10.1038/onc.2012.447. 2013.

10. **Kerr, Bethany A.***, Lining Ma*, Xiaoxia Z. West, Liang Ding, Nikolay L. Malinin, Malory E. Weber, Anna Goc, Payaningal R. Somanath, Marc S. Penn, Eugene A. Podrez and Tatiana V. Byzova. Interference with Akt Signaling in Dyslipidemia Diminishes Myocardial infarction and Promotes Survival by Inhibiting Oxidative Stress. *Science Signaling*. 6(287):ra67. DOI: 10.1126/scisignal.2003948. 2013.
Featured on cover, Editor's summary

11. Ma, Lining, **Bethany A. Kerr**, Sathyamangla V. Naga Prasad, Tatiana V. Byzova, and Payaningal R. Somanath. Differential Effects of Akt1 Signaling on Short- vs. Long-Term Consequences of Myocardial Infarction and Reperfusion Injury. *Laboratory Investigation*. 94(10):1083-91. DOI: 10.1038/labinvest.2014.95. 2014.

12. **Kerr, Bethany A.*,††**, Ranko Miocinovic*, Armine K. Smith, Xiaoxia Z. West, Katherine E. Watts, Malory E. Weber, Amanda W. Alzayed†, Joseph C. Klink, Maria C. Mir, Tiffany Sturey, Donna E. Hansel, Warren D. Heston, Andrew J. Stephenson, Eric A. Klein, and Tatiana V. Byzova. CD117+ cells in the circulation are predictive of advanced prostate cancer. *Oncotarget*. 6(3):1889-97. DOI: 10.18632/oncotarget.2796. 2015.

13. **Kerr, Bethany A.***, Xiaoxia Z. West*, Young-Woong Kim, Yongzhong Zhao, Miroslava Tischenko, Rebecca M. Cull, Timothy W. Phares, Xiao-Ding Peng, Jeremiah Bernier-Latmani, Tatiana V. Petrova, Ralf H. Adams, Nissim Hay, Sathyamangla V. Naga Prasad, and Tatiana V. Byzova. Stability and function of adult vasculature is sustained by Akt/Jagged1 signaling axis in endothelium. *Nature Communications*. 7:10960. DOI: 10.1038/ncomms10960. 2016.

14. Ren, Xiang, Brittni M. Foster†, Parham Ghassemi, Jeannine S. Strobl, **Bethany A. Kerr**, and Masoud Agah. Entrapment of Prostate Cancer Circulating Tumor Cells with a Sequential Size-Based Microfluidic Chip. *Analytical Chemistry*. 90(12):7526-34. DOI: 10.1021/acs.analchem.8b01134. 2018.

15. Kwok, Andy T, Joseph E. Moore, Samuel Rosas, **Bethany A. Kerr**, Rachel N. Andrews, Callistus M. Nguyen, Jingyun Lee, Cristina M. Furdui, Boyce E. Collins, Michael T. Munley, and Jeffrey S. Willey. Knee and Hip Joint Cartilage Damage from Combined Spaceflight Hazards of Low-Dose Radiation <1Gy and Prolonged Hind Limb Unloading. *Radiation Research*. 191(6):497-506. DOI: 10.1667/RR15216.1 2019.

16. Rosas, Samuel, Ryan T. Hughes, Michael Farris, Hwajin Lee, Emory R. McTyre, Johannes F. Plate, Lihong Shi, Cynthia L. Emory, A. William Blackstock, **Bethany A. Kerr**, and Jeffrey S. Willey. Cartilage Oligomeric Matrix Protein in Patients with Osteoarthritis is Independently Associated with Metastatic Disease in Prostate Cancer. *Oncotarget*. 10(46):4776-4785. DOI: 10.18632/oncotarget.27113. 2019.

17. Bracey, Daniel N.*, Alexander H. Jinnah*†, Jeffrey S. Willey, Thorsten M. Seyler, Ian D. Hutchinson, Patrick W. Whitlock, Thomas L. Smith, Kerry A. Danelson, Cynthia L. Emory, and **Bethany A. Kerr**. Investigating the Osteoinductive Potential of a Decellularized Xenograft Bone Substitute. *Cells, Tissues, Organs*. 207(2):97-113. DOI: 10.1159/000503280. 2019.

18. Peak, Taylor C., Gati K. Panigrahi, Prakash Praharaj, Yixin Su, Lihong Shi, Jacqueline Chyr, José Rivera Chávez, Laura Flores-Bocanegra, Ravi Singh, Donald J. Vander Griend, Nicholas Oberlies, **Bethany A. Kerr**, Ashok Hemal, Rhonda L. Bitting, and Gagan Deep. Syntaxin 6-Mediated Exosome Secretion Regulates Enzalutamide Resistance in Prostate Cancer. *Molecular Carcinogenesis* 59(1):62-72. DOI: 10.1002/mc.23129. 2019.

19. Ghassemi, Parham, Xiang Ren, Brittni M. Foster†, **Bethany A. Kerr**, and Masoud Agah. Post-Enrichment Circulating Tumor Cell Detection and Enumeration via Deformability Impedance Cytometry. *Biosensors and Bioelectronics*. 150:111868. DOI: 10.1016/j.bios.2019.111868. 2020.

20. Kikkeri, Kruthika, **Bethany A. Kerr**, Andrea S. Bertke, Jeannine S. Strobl, and Masoud Agah. Passivated-Electrode Insulator-based Dielectrophoretic Separation of Heterogeneous Cell Mixtures. *Journal of Separation Science*. 43(8):1576-85. DOI: 10.1002/jssc.201900553. 2020.

21. Ghassemi, Parham, Koran S. Harris†, Xiang Ren, Brittni M. Foster†, Carl D. Langefeld, **Bethany A. Kerr‡**, and Masoud Agah‡. Comparative Study of Prostate Cancer Biophysical and Migratory Characteristics via Iterative Mechanoelectrical Properties (iMEP) and Standard Migration Assays. *Sensors and Actuators B: Chemical*. 321:128522. DOI: 10.1016/j.snb.2020.128522. 2020.

22. **Kerr, Bethany A.††**, Lihong Shi, Alexander H. Jinnah†, Koran S. Harris†, Jeffrey S. Willey, Donald P. Lennon, Arnold I. Caplan, and Tatiana V. Byzova. Kindlin-3 Mutation in Mesenchymal Stem Cells Results in Enhanced Chondrogenesis. *Experimental Cell Research*. 399:112456. DOI: 10.1016/j.yexcr.2020.112456. 2021.

23. Harris, Koran S†, Brittni M. Foster†, Lihong Shi, Mary E. Mobley, Phyllis L. Elliott†, Conner J. Song†, Kounosuke Watabe, Carl D. Langefeld, and **Bethany A. Kerr**. CD117/c-kit Represents a Prostate Cancer Stem-Like Subpopulation Driving Progression, Migration and TKI Resistance. *Scientific Reports*. 11(1):1465. DOI: 10.1038/s41598-021-81126-6. 2021.

24. Rosas, Samuel, Shane Tipton, T. David Luo, **Bethany A. Kerr**, Johannes F. Plate, Jeffrey S. Willey, and Cynthia L. Emory. A History of Past Prostate Cancer Still Carries Risk After Total Knee Arthroplasty. *Journal of Knee Surgery*. 34(3):293-7. DOI: 10.1055/s-0039-1695706. 2021.

25. **Kerr, Bethany A.††**, Koran S. Harris†, Lihong Shi, Jeffrey S. Willey, David R. Soto-Pantoja, and Tatiana V. Byzova. Platelet TSP-1 Controls Prostate Cancer-Induced Osteoclast Differentiation and Bone Marrow-Derived Cell Mobilization through TGFβ-1. *American Journal of Clinical and Experimental Urology*. 9(1):18-31. DOI: 10.1101/2020.02.11.943860. 2021.

26. Jinnah, Alexander H.††, Patrick Whitlock, Jeffrey S. Willey, Kerry Danelson, **Bethany A. Kerr**, Cynthia L. Emory, Thomas L. Smith, and Daniel N. Bracey. Improved Osseointegration using Porcine Xenograft Compared to Demineralized Bone Matrix for the Treatment of Critical Defects in a Small Animal Model. *Xenotransplantation*. 28(2):e12662. DOI: 10.1111/xen.12662. 2021.

27. Kwok, Andy T., Nequesha S. Mohammed, Johannes F. Plate, Raghunatha R. Yammani, Samuel Rosas, Ted A. Bateman, Eric Livingston, Joseph E. Moore, **Bethany A. Kerr**, Jingyun Lee, Cristina M. Furdui, Li Tan, Mary L. Bouxsein, Virginia L. Ferguson, Louis S. Stodieck, David C. Zawieja, Michael D. Delp, Xiao W. Mao, Jeffrey S. Willey. Spaceflight and Hind Limb Unloading Induces an Arthritic Phenotype in Knee Articular Cartilage and Menisci of Rodents. *Scientific Reports*. 11(1):10469. DOI:10.1038/s41598-021-90010-2. 2021

28. Foster, Brittni M.†, Kendall L. Langsten†, Ammar Mansour, Lihong Shi, and **Bethany A. Kerr**. Tissue Distribution of Stem Cell Factor in Adults. *Experimental and Molecular Pathology*. In press.

Invited Reviews and Chapters

1. **Kerr, Bethany A.** and Tatiana V. Byzova. Integrin Alpha V. UCSD-Nature Molecule Pages. DOI: 10.1038/mp.a001211.01. 2010.

2. **Kerr, Bethany A.** and Tatiana V. Byzova. MicroCT: An Essential Tool in Bone Metastasis Research. *Computed Tomography Clinical Applications*. Ed. Luca Saba. InTech, 2012. 211-30. `http://www.intechopen.com/articles/show/title/microct-an-essential-tool-in-bone-metastasis-research`

3. **Kerr, Bethany A.** and Tatiana V. Byzova. Integrin Alpha V (ITGAV). *Encyclopedia of Signaling Molecules*. Ed. Sangdun Choi. Springer, 2013. 949-59. `http://www.springerreference.com/docs/html/chapterdbid/309486.html`

4. Harris, Koran S.†and **Bethany A. Kerr**. Prostate Cancer Stem Cell Markers Drive Progression, Therapeutic Resistance, and Bone Metastasis. *Stem Cells International*. 2017:1-9. DOI: 10.1155/2017/8629234. 2017.

5. Foster, Brittni M.†, Danish Zaidi†, Tyler R. Young†, Mary E. Mobley, and **Bethany A. Kerr**. CD117/c-kit in Cancer Stem Cell-Mediated Progression and Therapeutic Resistance. *Biomedicines*. 6(1):31. DOI: 10.3390/biomedicines6010031. 2018.

6. Jinnah, Alexander H.†, Benjamin C. Zacks†, Chukwuweike U. Gwam, and **Bethany A. Kerr**. Emerging and Established Models of Bone Metastasis. *Cancers*. 10(6):176. DOI: 10.3390/cancers10060176. 2018.

Miscellaneous Publications

1. **Kerr, Bethany A.** and Tatiana V. Byzova. αB-Crystallin: a Novel VEGF Chaperone. *Blood*. 115(16): 3181-3. DOI: 10.1182/blood-2010-01-262766. 2010. *Commentary*

2. **Kerr, Bethany A.** and Tatiana V. Byzova. The Dark Side of the Oxidative Force in Angiogenesis. *Nature Medicine*. 18(8):1184-5. DOI: 10.1038/nm.2881. 2012. *Commentary*

3. **Kerr, Bethany A.** An Aspirin a Day Keeps the Metastasis at Bay. *Science Translational Medicine*. 11(488):eaax1728. DOI: 10.1126/scitranslmed.aax1728. 2019. *Editorial*

4. **Kerr, Bethany A.** A Workout Plan to Prevent Metastasis. *Science Translational Medicine*. 11(496):eaax9564. DOI: 10.1126/scitranslmed.aax9564. 2019. *Editorial*

5. **Kerr, Bethany A.** Aging Is Just a State of Marrow. *Science Translational Medicine*. 11(504):eaay7698. DOI: 10.1126/scitranslmed.aay7698. 2019. *Editorial*

6. **Kerr, Bethany A.** A Trojan Horse Targeting Bone Metastasis. *Science Translational Medicine*. 11(512):eaaz3715. DOI: 10.1126/scitranslmed.aaz3715. 2019. *Editorial*

7. **Kerr, Bethany A.** A Two Step Program Preventing Bone Metastatic Relapse. *Science Translational Medicine*. 11(520):eaaz9759. DOI: 10.1126/scitranslmed.aaz9759. 2019. *Editorial*

8. **Kerr, Bethany A.** Immunomodulation in the Front, Bone-binding in the Back. *Science Translational Medicine*. 12(528):eaba2917. DOI: 10.1126/scitranslmed.aba2917. 2020. *Editorial*

Published Abstracts

1. Szymczyk, Krysia H., **Bethany A. Kerr**, Christopher S. Adams, and Marla J. Steinbeck. Arsenite Induces Differentiation and Apoptosis of Pre-Osteoclastic Cells by a Hydrogen Peroxide-Dependent Mechanism. *Journal of Bone and Mineral Research* 28:S348. 2003

2. Smith, Armine K., **Bethany A. Kerr**, Eric Klein, Warren D. Heston, and Tatiana V. Byzova. 695 Role of Circulating Neoplastic Progenitor Cells in Detection and Staging of Prostate Cancer. *The Journal of Urology* 184(4). 2010.

3. **Kerr, Bethany A.** and Tatiana V. Byzova. Prostate Cancer-Derived G-CSF Primes the Pre-Metastatic Niche. *Bone*. 47:S287-8. 2010.

4. **Kerr, Bethany A.**, Weiyi Feng, Maria Madajka, N. Patrick McCabe, and Tatiana V. Byzova. Platelets Transport the Tumor Secretome during Cancer Progression and Metastasis. *Journal of Thrombosis and Haemostasis*. 9:242-3. 2011.

5. Ma, Lining, **Bethany A. Kerr**, Xiaoxia Z. West, Nikolay L. Malinin, Malory E. Weber, Liang Ding, Payangingal R. Somanath, Eugene Podrez, and Tatiana V. Byzova. Interference with Akt Signaling in Dyslipidemia Diminishes Myocardial Infarction and Promotes Survival by Inhibiting Oxidative Stress. *Heart*. 98(Supp 2):E7-8. 2012.

6. **Kerr, Bethany A.** and Tatiana V. Byzova. Platelet Sequestered Proteins Mediate Communication Between Tumors and Bone. *Blood*. 122(21). 2013.

7. **Kerr, Bethany A.**, Weiyi Feng, N. Patrick McCabe, and Tatiana V. Byzova. Platelets and the Tumor Cell Microenvironment. *Blood*. vol 12. 2013.

8. **Kerr, Bethany A.** Abstract 2229: CD117 Expression and Activation in Prostate Cancer Progression. *Cancer Research*. 75(15 Supplement):2229. 2015.

9. Byzova, Tatiana V. and **Bethany A. Kerr**. Platelets in Cancer Progression and Metastasis: As093. *Journal of Thrombosis and Haemostasis*. 13:33. 2015.

10. Harris, Koran S.†, Lihong Shi, Taylor C. Peak, Stephanie Sanders, Aleksander Skardal, and **Bethany A. Kerr**. Abstract 1983: CD117 Expression and Activation Induce Prostate Cancer Metastasis. *Cancer Research*. 77(13 Supplement):1983. 2017.

11. Shi, Lihong, Koran S. Harris†, Brittni M. Foster†, Aleksander Skardal, and **Bethany A. Kerr**. Abstract LB-315: CD117 Tyrosine Kinase Activation Drives Prostate Cancer Aggressiveness. *Cancer Research*. 78(16 Supplement):Abstract nr LB-315. 2018.

PRESENTATIONS

Poster Presentations at Professional Meetings

Orthopaedic Research Society Annual Meeting — 2007
Rac-1 Activation in Chick Chondrocytes Induces Expression of a Mature Phenotype — San Diego, CA

American Society for Cell Biology Annual Meeting — 2007
Rac Activation and Localization During Chondrocyte Maturation — Washington, DC

International Meeting on Cancer Induced Bone Disease — 2009
Prostate Cancer-Derived G-CSF Primes the Pre-Metastatic Niche — Arlington, VA

Annual Meeting of the Society of Urologic Oncology — 2009
Circulating Stem Cells Are Predictive of the Presence and Clinical Characteristics of Prostate Cancer — Bethesda, MD

International Platelet Symposium — 2010
Platelets as Carriers of Tumor and Microenvironment Secretomes during Prostate Cancer Growth — Ma'ale Hachamisha, Israel

American Urological Association Annual Meeting — 2010
Role of Circulating Neoplastic Progenitor Cells in Detection and Staging of Prostate Cancer — San Francisco, CA

Cell Biology of Platelets and Megakaryocytes Gordon Research Conference — 2011
Platelet Alpha-Granules Sequester and Release the Tumor Secretome — Galveston,TX

Congress of the International Society on Thrombosis and Haemostasis — 2011
Platelets Transport the Tumor Secretome during Cancer Progression and Metastasis — Kyoto, Japan

Annual Meeting of the Society of Urologic Oncology — 2011
CD117 Expression in Circulating Cells as Potential Predictor of Advanced Prostate Cancer — Bethesda, MD

Atherosclerosis, Thrombosis, and Vascular Biology Scientific Sessions — 2012
Akt1 Deletion Promotes Survival in a Model of Spontaneous Myocardial Infarction and Atherosclerosis — Chicago, IL

Cell Biology of Platelets and Megakaryocytes Gordon Research Conference — 2013
Platelets Mediate Pre-Metastatic Tumor-Bone Communication — Galveston, TX

National Center for Regenerative Medicine Cancer Stem Cell Conference — 2014
Circulating CD117+ Cells Are a Biomarker of Advanced Prostate Cancer — Cleveland, OH

American Association for Cancer Research Annual Meeting — 2015
CD117 Expression and Activation in Prostate Cancer Progression — Philadelphia, PA

National Center for Regenerative Medicine Cancer Stem Cell Conference — 2016
Disseminated Tumor Cell Marker CD117 Drives Prostate Cancer Metastasis — Cleveland, OH

Society for Basic Urologic Research Fall Symposium — 2016
Switching on Prostate Cancer Metastasis: CD117 Tyrosine Kinase Activation — Scottsdale, AZ

American Association for Cancer Research Annual Meeting — 2017
CD117 Expression and Activation Induces Prostate Cancer Metastasis — Washington, DC

Society for Basic Urologic Research Fall Symposium — 2017
CD117 Tyrosine Kinase Activation Drives Prostate Cancer Aggressiveness — Tampa, FL

AACR Special Conference: Prostate Cancer: Advances in Basic, Translational, and Clinical Research — 2017
CD117 Tyrosine Kinase Activation Drives Prostate Cancer Aggressiveness — Orlando, FL

American Association for Cancer Research Annual Meeting — 2018
CD117 Tyrosine Kinase Activation Drives Prostate Cancer Aggressiveness — Chicago, IL

International Conference on Tumor Microenvironment and Cellular Stress — 2018
CD117 Tyrosine Kinase Activation Drives Prostate Cancer Aggressiveness — Chania, Crete, Greece

Society for Basic Urologic Research Annual Meeting — 2018
Platelet-Tumor SCF-CD117 Tyrosine Kinase Signaling Axis Drives — Palm Springs, CA
Prostate Cancer Progression and Metastasis

Hormone Dependent Cancer Gordon Research Conference — 2019
Bone Microevironment Alterations with Ovarian Cancer and Comorbidities — Newry, ME

International Translational Medicine and Therapeutics Conference — 2019
Developing New Bone Metastasis Models through Tissue-Engineering and Microfluidics — Philadelphia, PA

Society for Basic Urologic Research Annual Meeting — 2019
Developing New Bone Metastasis Models through Tissue-Engineering and Microfluidics — New Orleans, LA

Presentations by Trainees

Annual Biomedical Research Conference for Minority Students (Harris) — 2016
Disseminated Tumor Cell Marker CD117 Drives Prostate Cancer Metastasis — Tampa, FL
Poster Presentation

North Carolina Orthopaedic Association (Jinnah) — 2017
Creating an in vivo Bone Metastasis Model in an Immunocompetent Host — Williamsburg, VA
Podium Presentation; *Tumor Session Award*

Society for Basic Urologic Research Fall Symposium (Foster) — 2017
Tumor Communication to the Bone When SCF Is Deleted — Tampa, FL
Poster Presentation

Orthopaedic Summit Evolving Techniques (Jinnah) — 2017
Bone Metastasis Model Development in an Immunocompetent Murine Host — Las Vegas, NV
Podium Presentation; *Awarded Best Basic Science Paper*

Orthopaedic Research Society (Jinnah) — 2018
Creating an in vivo Bone Metastasis Model in an Immunocompetent Host — New Orleans, LA
Poster Presentation

SACNAS- The National Diversity in STEM Conference (Foster) — 2018
Stem Cell Factor and Its Role in Metastatic Prostate Cancer — San Antonio, TX
Poster Presentaiton; *Travel Award*

Musculoskeletal Tumor Society (Jinnah) 2018
Demonstrating Osteoinductivity in a Decellularized Xenograft Bone Substitute New York, NY
Paper Presentation

Annual Biomedical Research Conference for Minority Students (Elliott) 2018
CD117+ Prostate Cancer Cells Activated with Stem Cell Factor Displayed Increased Indianapolis, IN
AKT Expression and Motility
Poster Presentation; *Travel Award*

North Carolina Orthopaedic Association Annual Meeting (Jinnah) 2018
Osteoinductivity of a Novel Decellularized Porcine Bone Graft Kiawah Island, SC
Paper Presentation

Annual Biomedical Research Conference for Minority Students (Smith) 2018
Combination Dose Response of LNCaP-C4-2 CD117+ Cells Indianapolis, IN
Poster Presentation

Eastern Orthopaedic Association Annual Meeting (Jinnah) 2018
Demonstrating Osteoinductivity in a Decellularized Xenograft Bone Substitute Amelia Island, FL
Paper Presentation

American Association of Orthopaedic Surgeons Annual Meeting (Jinnah) 2019
Demonstrating Osteoinductivity in a Decellularized Xenograft Bone Substitute Las Vegas, NV
Poster Presentation

Gordon Research Conference: Cell Biology of Megakaryocytes and Platelets (Foster) 2019
Platelet Sequestered SCF Role in Prostate Cancer Metastasis Galveston, TX
Poster Presentation

International Tumor Microenvironment Workshop (Harris) 2019
Tumor Cell Marker CD117 Drives Progression and Metastasis in Prostate Cancer Tampa, FL
Podium Presentation; *New Investigator Award*

North Carolina Orthopaedic Association Annual Meeting (Jinnah) 2019
Using a Porcine Derived Xenograft in Rat Critical Defect Model Greensboro, NC
Paper Presentation

Orthopaedic Summit Evolving Techniques (Jinnah) 2019
Using a Porcine Derived Xenograft in Rat Critical Defect Model Las Vegas, NV
Paper Presentation

FASEB The Steroid Hormones and Receptors in Health and Disease Conference (Langsten) 2021
Spontaneous Bone Metastasis and Antiestrogen Response Virtual
in a Novel Estrogen Receptor-Positive Murine Breast Cancer Model
Podium Presentation; *Travel Award*

Invited Extramural Seminars and Podium Presentations

Platelet Alpha-Granules Sequester and Release the Tumor Secretome March 23, 2011
Cell Biology of Platelets and Megakaryocytes Gordon Research Conference Galveston, TX

A Key Kinase: the Multiple Roles for Akt1
in Atherosclerosis, Vascular Homeostasis and Heart Disease November 8, 2013
1st Puerto Rico Cell Signaling Scientific Meeting San Juan, PR

Intercepting Cancers Circulating Communications: Platelets and Progenitor Cells in Metastasis May 7, 2014
Tulane University School of Medicine New Orleans, LA

Intercepting Cancers Circulating Communications: Platelets and Progenitor Cells in Metastasis May 12, 2014
Karmanos Cancer Institute, Wayne State University Detroit, MI

Intercepting Cancers Circulating Communications: Platelets and Progenitor Cells in Metastasis — June 23, 2014
Fels Institute, Temple University — Philadelphia, PA

Intercepting Cancers Circulating Communications: Platelets and Progenitor Cells in Metastasis — Aug. 27, 2014
University of Alabama at Birmingham — Birmingham, AL

Intercepting Cancers Circulating Communications: Platelets and Progenitor Cells in Metastasis — Sept. 19, 2014
Hormel Institute — Austin, MN

Intercepting Cancers Circulating Communications: Platelets and Progenitor Cells in Metastasis — Oct. 30, 2014
University of Massachusetts, Boston — Boston, MA

Mechanisms of Prostate Cancer Bone Metastasis — April 22, 2015
Department of Orthopaedic Surgery, Thomas Jefferson University — Philadelphia, PA

Intercepting Cancers Circulating Communications: Platelets and Progenitor Cells in Metastasis — August 25, 2015
Wake Forest School of Medicine — Winston-Salem, NC

Two Sides of a Coin: Physiological and Pathological Angiogenesis — September 3, 2015
University of Rochester Medical Center — Rochester, NY

Disseminated Tumor Cell Marker CD117 Drives Prostate Cancer Metastasis — September 22, 2016
National Center for Regenerative Medicine Cancer Stem Cell Conference — Cleveland, OH

CD117 Identifies Prostate Cancer Stem Cells and Drives Metastasis — July 27, 2017
Virginia-Maryland College of Veterinary Medicine at Virginia Tech — Blacksburg, VA

Platelet SCF Binds Tumor CD117 Driving Prostate Cancer Progression — June 15, 2019
International Tumor Microenvironment Workshop — Tampa, FL

Modeling Cancer Cell Bone Metastasis from Invasion to Extravasation — October 18, 2019
Rowan University — Glassboro, NJ

Uncovering the Mechanisms of Bone Metastasis through Modeling and Microfluidics — September 15, 2020
Case Western Reserve University — Cleveland, OH

Platelets and Bone Marrow-Derived Progenitor Cells in Prostate Cancer Metastasis — September 29, 2020
Blood and Bone Seminar Series — Online Series
YouTube Link: `https://youtu.be/W2Cg2q1c6KI`

Modeling Prostate Cancer Bone Tropism — November 13, 2020
Society for Basic Urologic Research Annual Meeting — Virtual

Discovering Bone Metastasis Mechanisms via Modeling and Microfluidics — May 5, 2021
Washington University, St. Louis — St. Louis, MO

Commercial Presentations

The Interplay between Platelets and Circulating Progenitor Cells Impacts Tumor Growth — October 13, 2011
Baxter Healthcare Corporation Young Investigator Award Seminars — Deerfield, IL

Internal Seminars

Role of Circulating "Stem" Cells in Pathology of Prostate Cancer — May 29, 2009
Cleveland Clinic-CWRU Prostate Cancer Research Group

Circulating Progenitor Cells as Biomarkers for Prostate Cancer — January 7, 2012
Glickman Urological and Kidney Institute Prostate Cancer Retreat

The Curious Case of Akt1 Activation in Atherosclerosis and Heart Disease — March 23, 2012
Lerner Research Institute Page Lecture Workshop

Circulating CD117+ Progenitor cells in Prostate Cancer — April 27, 2012
Case Comprehensive Cancer Center Prostate Cancer Focus Group

Intercepting Cancers Circulating Communications: Platelets and Progenitor Cells in Metastasis — July 16, 2015
Case Comprehensive Cancer Center Prostate Cancer Working Group

Discovering Biomarkers of Prostate Cancer Progression — November 16, 2016
Wake Forest Baptist Comprehensive Cancer Center Prostate Cancer Center of Excellence

Cancer Stem Cell Marker CD117 Drives Prostate Cancer Metastasis — October 17, 2017
Wake Forest Baptist Comprehensive Cancer Center Tumor Microenvironment Interest Group

Who's In Charge Here? Interplay Between Cancer
and the Bone Microenvironment during Metastasis — July 18, 2018
Wake Forest Baptist Orthopaedic Surgery Grand Rounds

Developing New Bone Metastasis Models through Tissue-Engineering and Microfluidics — October 22, 2019
Wake Forest University-Virginia Tech Biomedical Engineering Department

Generating Clinically-Relevant Breast Cancer Metastatic Models — October 19, 2020
Wake Forest Baptist Comprehensive Cancer Center Breast Cancer Center of Excellence

Developing Tissue-Engineered Models to Track Breast Cancer Bone Metastasis — April 21, 2021
Wake Forest School of Medicine Women in Medicine and Science Women's Health Research Day

DIDACTIC INSTRUCTION

Course Director — 2016 - Present
MCB 722, Basic Concepts in Cancer Research (2.0 hrs)
WFU Graduate School for Arts and Sciences, Molecular and Cellular Biosciences Program

Facilitator — 2016 - Present
CABI 711/712: Advanced Topics in Cancer Biology (Journal Club)
WFU Graduate School for Arts and Sciences, Molecular and Cellular Biosciences Program, Cancer Biology Track

Lecturer — 2017 - Present
MCB 721, Basic Concepts in Cancer Biology
WFU Graduate School for Arts and Sciences, Molecular and Cellular Biosciences Program

Facilitator — 2017 - 2019
MMTS 724, Scientific Development and the Business of Science
WFU Graduate School for Arts and Sciences, Molecular and Cellular Biosciences Program, Molecular Medicine and Translational Sciences Track

Facilitator — 2020
GRAD 714, Scientific Integrity & Professionalism
WFU Graduate School for Arts and Sciences

Course Director — 2020
GRAD 700, Independent Study: Designing Microfluidic Models of Metastasis
WFU Graduate School for Arts and Sciences

MENTORING

Graduate Student Trainees

Brittni Foster, M.S.; Ph.D. Candidate — 2017 - Present
Molecular and Cellular Biosciences Graduate Program, MMTS — Thesis Advisor

Alex Jinnah, M.D., Ph.D. — 2017 - 2021
Molecular and Cellular Biosciences Graduate Program, MMTS — Thesis Co-Advisor
Current: Resident, Orthopaedic Surgery Department, Wake Forest School of Medicine

Koran Harris; Ph.D. Candidate — 2018 - Present
Molecular and Cellular Biosciences Graduate Program, Cancer Biology — Thesis Advisor

Maria Xie, M.S. 2019
Biomedical Sciences MS Program Research Advisor
Current: Clinical Studies Coordinator I, Wake Forest Baptist Comprehensive Cancer Center

Chirayu Patel, M.S. 2019
Molecular and Cellular Biosciences Graduate Program Thesis Advisor
Current: Ph.D. Student, Wake Forest School of Medicine

Victoria Surratt; M.S. Student 2020 - Present
Biomedical Sciences MS Program Research Advisor

Kendall Langsten, D.V.M; Ph.D. Student 2021 - Present
Molecular and Cellular Biosciences Graduate Program, MMTS Thesis Advisor
T32 OD010957 Laboratory Animal & Comparative Medicine Training Fellow

Medical Student Trainees

Danish Zaidi, B.A., M.T.S., M.B.E 2016 - 2017
Dubie Holliman Heart and Cancer Fund MSRP Recipient

Benjamin Zacks, B.S. 2017 - 2018

Undergraduate Student Trainees

Amanda Alzayed, B.S., John Carroll University 2011
Current: Resident, Riverside Methodist Hospital

Hannah Conway, B.S., Notre Dame College 2015
Current: Clinical Research Coordinator, Huntsman Cancer Institute, University of Utah

Koran Harris, B.S., North Carolina A&T 2016 - 2017
MARC U-STAR Scholar; DOD NC Summer Undergraduate Prostate Cancer Research Student
Current: Molecular and Cellular Biosciences Graduate Program, Cancer Biology

Ziaqueria Short, B.S., Winston-Salem State University 2017
NIGMS-RISE Scholar; DOD NC Summer Undergraduate Prostate Cancer Research Student
Current: Reception Tech, CSL Plasma

Phyllis Elliot, B.S., University of North Carolina - Chapel Hill 2017 - 2018
Gates Foundation Millennium Scholar
Current: Graduate Student, Emory University

Conner Song, B.S., Wake Forest University 2018 - 2019
Current: Graduate Student, Baylor University

Sheldon Smith, B.S., Winston-Salem State University 2018
NIGMS-RISE Scholar; NIH/NHLBI EICS Summer Scholar
Current: D.P.T. Student

Jessica Dean, B.S., University of North Carolina - Pembroke 2019
NIGMS-RISE Scholar; NIH/NCI R25 CREGP Summer Scholar
Current: Graduate Student, The Ohio State University

Stephen Sokolosky, Wake Forest University 2020

Lexie Skeen, Wake Forest University 2021 - Present

Drew Nwokeafor-Laz, Wake Forest University 2021
NIH R25 ENGAGED Scholar

Shamon Mercier, University of North Carolina - Pembroke 2021 - Present
NIGMS-RISE Scholar; NIH/NCI R25 CREGP Summer Scholar

High School Student Trainees

Tyler Young, McDowell High School Student — 2017
Stand Up to Cancer's and PBS's Emperor Science Student

Graduate Student Thesis Committees

Brooke Widner; Ph.D. Candidate — 2016 - 2020
Molecular and Cellular Biosciences Graduate Program, Cancer Biology — Thesis Committee Member

Marianne Collard, Ph.D. — 2016 - 2019
Integrative Physiology and Pharmacology Graduate Program — Thesis Committee Member

David Luo, M.D.; Ph.D. Candidate — 2016 - Present
Molecular and Cellular Biosciences Graduate Program, MMTS — Thesis Committee Chair

Tracee Popielarczyk, Ph.D. — 2017
Biomedical and Veterinary Sciences: Regenerative Medicine Program, Virginia Tech — External Examiner

Lais Ghiraldeli, M.S. — 2017 - 2018
Integrative Physiology and Pharmacology Graduate Program — Thesis Committee Chair

Sam Rosas, M.D., Ph.D. — 2018 - 2020
Molecular and Cellular Biosciences Graduate Program, MMTS — Thesis Committee Chair

Andy Kwok, Ph.D. — 2018 - 2021
Integrative Physiology and Pharmacology Graduate Program — Thesis Committee Member

Steven Forsythe, M.S.; Ph.D. Student — 2019 - Present
Molecular and Cellular Biosciences Graduate Program, Cancer Biology — Thesis Committee Member

Alexandra Sivec, M.S. — 2019 - 2020
Biomedical Sciences MS Program — Thesis Committee Member

Marlyn Anguelov, M.S. — 2019 - 2020
Biomedical Sciences MS Program — Thesis Committee Member

Caroline Miller; Ph.D. Student — 2019 - Present
Biomedical Engineering Program — Thesis Committee Member

Matthew Roll; Ph.D. Student — 2019 - Present
Molecular and Cellular Biosciences Graduate Program, Cancer Biology — Thesis Committee Member

Parham Ghassemi; Ph.D. Student — 2020 - Present
Electrical and Computer Engineering Graduate Program, Virginia Tech — Thesis Committee Member

PUBLIC OUTREACH

Group Leader, Lerner Research Institute Science Day — 2014 - 2015

Speaker, Dean's Forum "Emerging Voices in Cancer Research" — October 19, 2016

Career Development Speaker, UNC Greensboro Health Occupations Students of America — September 23, 2020

COMMUNITY SERVICE

Junior League of Cleveland — 2013 - 2015

Junior League of Winston Salem — 2016 - 2017
Volunteer with Brenner FIT

Winston-Salem Jaycees — 2016 - 2020

Alpha Omicron Pi — 2020 - Present
EX Chapter (Elon University) Financial Advisor