

CURRICULUM VITAE
(Date of this version 07/03/2023)
Bernard Kwabi-Addo, PhD
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EDUCATION AND SCIENTIFIC TRAINING

1991	B.Sc. (Honors) in Biochemistry, University of Dundee (Scotland, UK)
1992	M.Sc. in Applied Molecular Biology & Biotechnology, University of London (UK)
1997	Ph.D. in Molecular Biology, University of London (UK)

EMPLOYMENT HISTORY

Sept.1992 - Sept.1993	Research Scientist- laboratory of Dr. Andrew Smith, Medical Research Council (Laboratory of Molecular Biology) Addenbrooke's Hospital, Cambridge, England.
1993-1997	Doctoral candidate- Laboratory of Dr Timothy Peakman, GlaxoSmithKline Research and Development Stevenage, UK.
1998-2002	Postdoctoral Fellow- Laboratory of Dr. Michael Ittmann, Department of Pathology, Baylor College of Medicine, Houston, TX.
2002- 2007	Research Instructor- Department of Pathology, Baylor College of Medicine, Houston TX.
2007- 2011	Assistant Professor- Howard University Cancer Center/Department of Obstetrics & Gynecology, Howard University, Washington DC.
2011- 2022	Associate Professor (Tenured) - Department of Biochemistry and Molecular Biology, College of Medicine, Howard University, Washington, DC.
2014-2022	Adjunct Associate Professor, Johns Hopkins Medical School, Baltimore, MD
2016-2020	External Graduate Faculty Member, Molecular and Biomedical Sciences Department, University of Maine, Orono, ME.
2022- Present	Professor (Tenured)- Department of Biochemistry and Molecular Biology, College of Medicine, Howard University.

HONORS, AWARDS AND THANK YOU

1988	First Class Awards - Calculus & Chemistry University of Dundee (Scotland; UK)
1993- 1997	Medical Research Council PhD Scholarship Award (UK)
2004	American Association for Cancer Research Minority Scholar Award

2008	American Association for Cancer Research Minority-Serving Institution Faculty Scholar Award
2010	American Association for Cancer Research Minority-Serving Institution Faculty Scholar Award
2010	Howard University College of Medicine Research Day Travel Award (Junior Faculty) Washington D.C.
2012	Travel Award, 13 th RCMI International Symposium on Health Disparities
2014	Judge, The Tenth Annual American Association for Cancer Research Undergraduate Student Caucus and Poster Presentation. Philadelphia, PA.
2014	Minority Scholar in Cancer Research -American Association for Cancer Research (AACR)
2017	Judge, The Twelfth Annual American Association for Cancer Research Undergraduate Student Caucus and Poster Presentation. Washington D.C
2017	Most outstanding presentation in Education and Outreach, Howard University Research Symposium, Washington D.C
2018	Speaker, Patcha Foundation. Symposium on Bridging the Cancer Care Gap. Washington DC.
2021	Speaker, Ghana Physicians and Surgeon Foundation. Virtual Conference on The Role of Technology and Innovation in HealthCare Delivery.
2021	Presenter, National Institute on Minority Health and Health Disparities and the RCMI Specialized Centers program Virtual Conference.

RESEARCH GRANTS

Extramural funding:

Active

1. Grant Period (RO1): 07/01/2019 - 06/30/2025: Role **Project PI** - Bernard Kwabi-Addo PhD. My role is the overall administration, design and analysis of experiments proposed in this grant. In addition, I am responsible for publishing any reportable outcome from the project. My effort contribution (10 % effort) for the entire duration of the project.
Title: Epigenetic Regulated Genes in African American Prostate Cancer Patients.
Grant Mechanism: National Institute of Minority Health and Health Disparities U54 MD007579 to Howard University RCMI: Total direct cost \$1,250,000.00)

Completed

1. Grant Period: 09/01/2004 - 09/30/2007: Role **Project PI**- Bernard Kwabi-Addo PhD. My role was overall administration, design and analysis of experiments proposed in the grant. In addition, I was responsible for publishing any reportable outcome from the project. My effort contribution (100 % effort) for the entire duration of the project.

Title: Mechanisms Down-Regulating Sprouty1, a Growth Inhibitor in Human Prostate Cancer. My effort contribution (100 % effort) for the entire duration of the project.

Grant Mechanism: Department of Defense New Investigator Award CDMRP log# PC040326. Total direct cost for project: \$338, 625). **Note:** Partial transfer of funds to Howard University at the start of tenure (03/27/2007)

2. Grant Period: 09/01/2008- 08/30/2010: Role **Project Co-PI**- Bernard Kwabi-Addo PhD. My role was to design and execute experiments proposed in the grant and publish reportable findings from studies. Full project Award.

Title: Age, Sex Steroid, Inflammation and Prostate DNA Methylation.

Grant Mechanism: National Cancer Institute U54 (Howard University –Johns Hopkins University partnership grant, log # CA091431). Total direct cost for project: \$200,000.

3. Grant Period: 06/30/2008-07/01/2011: Role **Project PI**- Bernard Kwabi-Addo PhD. My role is overall administration, design and analysis of experiments proposed in this grant. In addition, was responsible for publishing any reportable outcome from the project. My effort contribution (15 % effort) for the entire duration of the project.

Title: Age-Related DNA Methylation Changes and Neoplastic Transformation of the Human Prostate

Grant Mechanism: Department of Defense (DoD) Idea Award. CDMRP log# PC073828 Total direct cost for project: \$358,440.

4. Grant Period: 08/31/2011-09/01/2014: Role **Project PI**- Bernard Kwabi-Addo PhD. My role in the project was to overall administrative, design and analysis of experiments proposed in grants and publication of reportable outcomes from studies. My effort contribution (20% effort) for the entire duration of the project.

Title: Global Epigenetic Changes May Underlie Ethnic Differences and Susceptibility to Prostate Cancer.

Grant Mechanism: Department of Defense (DoD) Health Disparity Research Award (qualified Collaborator option) CDMRP log# PC101996 Total direct cost for project: \$596,023.

Intramural funding:

1. Grant Period: 01/01/2015-06/30/2016: Role **Project PI**-Bernard Kwabi-Addo PhD. My role was to use funding to generate data towards finding extramural funds. My effort contribution (10 % effort) for the entire duration of the project.

Title: Elucidating the causal role of DNA methylation changes and gene expression in prostate cancer disparities.

Grant Mechanism: Howard University College of Medicine BRIDGE funds award. Total amount \$25,000.00

2. Grant Period: 06/30/2007-06/01/2009): Role **Project PI**- Bernard Kwabi-Addo PhD. My role was to use research funds to start up my laboratory.

Title: Investigating DNA-Methylation Changes as a Function of Age in Human Prostate and their Potential as Biomarkers for Disease Detection. My effort contribution (10 % effort) for the entire duration of the project.

Grant Mechanism: Howard University New Faculty Start-up Funds Total Award (\$70,000).

Pending:

1. Grand Cancer Challenge (letter of Interest submitted June 22, 2023). Role Co-Investigator. Addressing Inequity in Cancer Precision Medicine with Application to Disparities in Prostate Cancer between African and Non-African Populations. A multi-international research proposal. <https://www.cancer.gov/grants-training/grants-funding/cancer-grand-challenges>. Total amount requested ~\$25,000,000.00 for 5 years.
1. Grant Period: 09/01/2023-08/30/2026: Role **Project co-PI**-Bernard Kwabi-Addo PhD. My role is to design and execute experiments to investigate epigenetic alterations in proposed studies. In addition, I will contribute writing findings from proposed studies.
Title: Differential biological pathways with COVID-19 disease severity in African Americans: Role of genetic susceptibility
Grant Mechanism: National Institute on Minority Health and Health Disparities Special Interest Administrative Supplement for the Impact of COVID-19: NOSI: NOT-MD-20-19. Total amount requested: \$383,525
2. Grant Period: 01/01/2023- 12/31/2026: Role **Project co-PI and Co-Leader** Developmental Research Program Bernard Kwabi-Addo PhD. My roles are 1. Execute aspects of the proposed specimen aims in project (10% effort) and serve in an educational capacity as a Co-leader for the SPORE Developmental Research Program (3% effort).
Title: Howard-Hopkins SPORE in Minority Health
Grant Mechanism: NIH-NCI Health Disparity SPORE grant

PEER-REVIEWED PUBLICATIONS

1. Smith AJ, De Sousa MA, **Kwabi-Addo B**, Heppell-Parton A, Impey H, Rabbitts P. A site-directed chromosomal translocation induced in embryonic stem cells by Cre-loxP recombination. *Nat. Genet.* 1995; 9:376-85.
2. **Kwabi-Addo B**, Thompson TC, Ittmann M. Absence of PTEN/MMAC1 pseudogene in mice. *DNA Cell Biol.* 2000; 19: 301-5.
3. Ropiquet F, Giri D, **Kwabi-Addo B**, Mansukhani A, Ittmann M. Increased expression of fibroblast growth factor 6 in human prostatic intraepithelial neoplasia and prostate cancer. *Cancer Res.* 2000; 60: 4245-50.
4. Ropiquet F, Giri D, **Kwabi-Addo B**, Schmidt K, Ittmann M. FGF-10 is expressed at low levels in the human prostate. *Prostate.* 2000; 44:334-8.
5. **Kwabi-Addo B***, Ropiquet F, Giri D, Ittmann M. Alternative splicing of fibroblast growth factor receptors in human prostate cancer. *Prostate.* 2001; 46: 163-72.
6. **Kwabi-Addo B**, Giri D, Schmidt K, Podsypanina K, Parson R, Greenberg N, Ittmann M. Haploinsufficiency of the Pten tumor suppressor gene promotes prostate cancer progression. *Proc. Natl. Acad. Sci U.S.A.* 2001; 98: 11563-8.

7. Shan L, Chen GL, Chengxi R, **Kwabi-Addo B**, Epner DE. Methionine restriction selectivity targets thymidylate synthase in prostate cancer cells. *Biochemical Pharmacology*. 2003; 66:791-800.
8. Polnaszek N, **Kwabi-Addo B**, Peterson L, Ozen M, Greenberg N, Ortega S, Basilico C, Ittmann M. FGF2 promotes tumor progression in an autochthonous mouse model of prostate cancer. *Cancer Res* 2003; 63: 5754-5760.
9. Polnaszek N, **Kwabi-Addo B**, Wang J, Ittmann M. FGF17 is an autocrine prostatic epithelial growth factor and is upregulated in benign prostatic hyperplasia. *Prostate*. 2004; 60: 18-24.
10. **Kwabi-Addo B***, Wang J, Erdem H, Vaid A, Castro P, Ayala G, Ittmann M. Sprouty1, an inhibitor of Fibroblast growth factors is downregulated in prostate cancer. *Cancer Res*. 2004; 64: 4728-35.
11. **Kwabi-Addo B***, Ozen M, Ittmann M. The role of fibroblast growth factors and their receptors in prostate cancer. *Endocr Relat Cancer*. 2004; 11: 709-24.
12. Rosa A.L., Wu Y., **Kwabi-Addo B**, Coveler K. J., Sutton V. R., Shaffer L. G. Allele-specific methylation of a functional CTCF binding site upstream of MEG3 in the human imprinted domain of 14q32. *Chromosome Res*. 2005; 13:809-18.
13. Wang J, Luo H, Thompson B, Ren C, Ittmann M, **Kwabi-Addo B***. Sprouty4 is a suppressor of tumor cell motility that is methylated in human prostate cancer. *Prostate*. 2006; 66:613-24.
14. Feng S, Agoulnik IU, Bogatcheva NV, Kamat AA, **Kwabi-Addo B**, Li R, Ayala G, Ittmann MM, Agoulnik AI. Relaxin promotes prostate cancer progression. *Clin Cancer Res*. 2007; 13:1695-702
15. **Bernard Kwabi-Addo***, Woonbok Chung, Lanlan Shen, Michael Ittmann, Thomas Wheeler, Jaroslav Jelinek and Jean-Pierre J. Issa. Age-Related DNA Methylation Changes in Normal Human Prostate Tissues. *Clin Cancer Res*. 2007; 13:3796-3802.
16. Chung W, **Kwabi-Addo B**, Ittmann M, Jelinek J, Shen L, Yu Y, Issa JP. Identification of novel tumor markers in prostate, colon and breast cancer by unbiased methylation profiling. *PLoS ONE*. 2008; 3: e2079.
17. Kondo Y, Shen L, Cheng AS, Ahmed S, Bumber Y, Charo C, Yamochi T, Urano T, Furukawa K, **Kwabi-Addo B**, Gold DL, Sekido Y, Huang TH, Issa JP. Gene silencing in cancer by histone H3 lysine 27 trimethylation independent of promoter DNA methylation. *Nat Genet*. 2008; 40:741-50.
18. **Kwabi-Addo B***, Ren C, Ittmann M. DNA methylation and aberrant expression of sprouty1 in human prostate cancer. *Epigenetics*. 2009; 4: 54-61.
19. **Kwabi-Addo B***, Wang S, Chung W, Jelinek J, Patierno SR, Wang BD, Andrawis R, Lee NH, Apprey V, Issa JP, Ittmann M. Identification of differentially methylated genes in normal prostate tissues from African American and Caucasian men. *Clin. Cancer Res*. 2010; 16:3539-47.
20. Darimipourain M, Wang S, Ittmann M, **Kwabi-Addo B**. Transcriptional and post-transcriptional regulation of Sprouty1, a Receptor Tyrosine Kinase Inhibitor in Prostate Cancer. *Prostate Cancer and Prostatic diseases*. 2011; 14: 279-85.
21. Vaughn MP, Biswal Shinohara D, Castagna N, Hicks JL, Netto G, De Marzo AM, Speed TJ, Reichert ZR, **Kwabi-Addo B**, Henderson CJ, Wolf CR, Yegnasubramanian S, Nelson WG. Humanizing π -Class Glutathione S- Transferase

- Regulation in a Mouse Model Alters Liver Toxicity in Response to Acetaminophen Overdose. *PLoS ONE*. 2011; 6: e25707.
22. Wang S, Dorsey TH, Terunuma A, Kittles RA, Ambs S, **Kwabi-Addo B***. Relationship between Tumor DNA Methylation Status and Patient Characteristics in African American and European-American Women with Breast Cancer. *PLoS ONE*. 2012; 7: e37928.
 23. Akinboye ES, Rosen MD, Denmeade SR, **Kwabi-Addo B**, Bakare O. Design, synthesis and evaluation of pH-dependent hydrolysable emetine analogs as treatment for prostate cancer. *J Med Chem*. 2012; 55:7450-9.
 24. Devaney JM, Funda S, Long J, Taghipour DJ, Tbaishat R, Furbert-Harris P, Wang S, Ittmann M, **Kwabi-Addo B***. Identification of Novel DNA Methylation Biomarkers Associated with Human Prostate Cancer and High Grade Prostatic Intraepithelial Neoplasia. *Prostate Cancer and Prostatic Diseases* 2013; 16:292-300.
 25. Wing MR, Devaney JM, Joffe MM, Xie D, Feldman HI, Dominic EA, Guzman NJ, Ramezani A, Susztak K, Herman JG, Cope L, Harmon B, **Kwabi-Addo B**, Go AS, He J, Lash JP, Kusek JW and Raj DS. DNA Methylation Profile Associated with Rapid Decline in Kidney Function: Findings from the CRIC Study. *Nephrol Dial Transplant*. 2014; 29:864-72.
 26. Devaney JM, Wang S, Furbert-Harris P, Apprey V, Ittmann M, Wang BD, Olender J, Lee NH, **Kwabi-Addo B***. Genome-wide differentially methylated genes in prostate tissues from African American and Caucasian men. *Epigenetics* 2015; 10(4): 31-28.
 27. Akinboye ES, Bamji ZD, **Kwabi-Addo B**, Ejeh D, Copeland RL, Denmeade SR, Bakare O. Design, synthesis and cytotoxicity studies of dithiocarbamate ester derivatives of emetine in prostate cancer cell lines. *Bioorg Med Chem*. 2015; 23(17): 5839-45.
 28. Sex steroid-induced DNA methylation changes and inflammation response in prostate cancer. Wang S, Clark PA, Davis R, Mumunui S, **Kwabi-Addo B*** *Cytokine* 2016; 86: 110-118.
 29. Moses-Fynn E, Tang W, Beyene D, Apprey V, Copeland R, Kanaan Y, **Kwabi-Addo B***. Correlating Blood-Based DNA Methylation Markers and Prostate Cancer Risk in African American men. *PLoS One*. 2018 Sep 11;13(9): e0203322.
 30. Apprey V, Wang S, Tang W, Kittles RA, Southerland WM, Ittmann M, **Kwabi-Addo B***. Association of Genetic Ancestry with DNA Methylation Changes in Prostate Cancer Disparity. *Anticancer Res*. 2019 Nov;39(11):5861-5866.
 31. Songping Wang, Krishma Tailor, **Bernard Kwabi-Addo***. Androgen-induced Epigenetic Profiles of Polycomb and Trithorax Genes in Prostate Cancer Cells. *Anticancer Res* 2020 May;40(5):2559-2565.
 32. Scott W Keith, **Bernard Kwabi-Addo**, Charnita Zeigler-Johnson. Interactions Between Obesity and One-Carbon Metabolism Genes in Predicting Prostate Cancer Outcomes Among White and Black Patients. *J Racial Ethn Health Disparities*. Jan 11, 2021. doi: 10.1007/s40615-020-00958-6. Online ahead of print.
 33. Forough Saadatmand, Katherine Gurdziel, Latifa Jackson, **Bernard Kwabi-Addo**, Douglas Ruden. 2021. DNA Methylation and Exposure to Violence among African American Young Adult Male. *Brain, Behavior, & Immunity Health* 2021 Mar 29;14:100247. doi: 10.1016/j.bbih.2021.100247

34. Krishma Tailor, Joseph Paul, Somiranjana Ghosh, Namita Kumari, **Bernard Kwabi-Addo** *. RASAL2 suppresses the proliferative and invasive ability of PC3 prostate cancer cells. *Oncotarget*. 2021 Dec 21;12(26):2489-2499. doi: 10.18632/oncotarget.28158. eCollection 2021 Dec 21. PMID: 34966481
35. Julius S Ngwa, Evaristus Nwulia, Oyonumo Ntekim, Fikru B Bedada, **Bernard Kwabi-Addo**, Sheeba Nadarajah, Steven Johnson, William M Southerland, John Kwagyan, Thomas O Obisesan. Aerobic Exercise Training-Induced Changes on DNA Methylation in Mild Cognitively Impaired Elderly African Americans: Gene, Exercise, and Memory Study - GEMS-I. *Front Mol Neurosci* 2022 Jan 17;14:752403. doi: 10.3389/fnmol.2021.752403. eCollection 2021.
36. Forough Saadatmand, Muneer Abbas, Victor Apprey, Krishma Tailor, **Bernard Kwabi-Addo**. Sex differences in saliva-based DNA methylation changes and environmental stressor in young African American adults *PLoS One* 2022 Sep 6;17(9):e0273717. doi: 10.1371/journal.pone.0273717. eCollection 2022. PMID: 36067197. PMCID: PMC9447871 DOI: 10.1371/journal.pone.0273717
37. Chad J. Creighton, Flora Zhang, Yiqun Zhang, Patricia Castr, Rong Hu, Md Islam, Somiranjana Ghosh, Michael Ittmann, **Bernard Kwabi-Addo**. Comparative and integrative analysis of Transcriptomic and Epigenomic-wide DNA Methylation changes in African American Prostate Cancer. *Epigenetics* 2023, Vol. 18, NO. 1, 2180585 <https://doi.org/10.1080/15592294.2023.2180585> © 2023

BOOK AUTHORSHIP

- **Bernard Kwabi-Addo** and Tia Laura Lindstrom. *Cancer Causes and Controversies- Understanding Risk Reduction and Prevention*. Praeger 2011.
- **Bernard Kwabi-Addo**. Epigenetic Biomarkers and Racial Differences in Cancer; Chapter 10 in *Epigenetic Mechanisms in Cancer Vol. 3 1st Edition*. Editor; Sabita Saldanha (Book Chapter contribution Elsevier 2017).
- **Bernard Kwabi-Addo**. *Health Outcomes in a Foreign Land- A Role for Epigenomic and Environmental Interactions*. Springer 2017
- **Bernard Kwabi-Addo**. *Check the FATS- eliminate chronic diseases*. Self-published Amazon.com September 2021.

SCIENTIFIC MEETINGS ABSTRACT & POSTER PRESENTATIONS

1. **Kwabi-Addo B**, Woonbok Chung, Michael Ittmann, Jaroslav Jelinek and Issa JP. (2007). American Association for Cancer Research (AACR) Annual Meeting- Age-Related DNA Methylation Changes in Normal Human Prostate. AACR Annual meeting, Los Angeles CA.
2. **Kwabi-Addo B**, Wang S, Jelinek J, Issa JP. and Ittmann M. (2009). Differential DNA methylation profiles reveal novel pathways in prostate carcinogenesis. AACR Annual Meeting, Denver CO.
3. **Kwabi-Addo B**, Wang S, Lee NH. and Ittmann M. (2010). Epigenetic DNA methylation changes may underlie racial differences and susceptibility to prostate cancer. AACR Annual Meeting, Washington DC.

4. **Kwabi-Addo B** (2011). Validation and quantitation of DNA methylation changes. AACR Health Disparities Meeting, Washington D.C.
5. **Kwabi-Addo B**, Wang S, Lee NH, Ittmann M, Funda S, Devaney J (2012). Genome wide methylation array of human prostate tissues using Illumina Infinium 450K bead chip reveals distinct DNA methylation signatures with potential as clinical predictors. American Association for Cancer Research (AACR) Annual Meeting Chicago IL.
6. Rana Tbaishat (PhD *student from my lab*), Songping Wang, **Bernard Kwabi-Addo** (2013). Evaluating and validating ZNF783, As a Novel Tumor Suppressor Gene in Prostate Cancer. American Association for Cancer Research (AACR) Annual Meeting Washington DC.
7. **Kwabi-Addo B**, Wang S, Furbert-Harris P, Yegnasubramanian S, Devaney J (2013). Functional characterization of Basonuclin1 (BNC1): A novel tumor suppressor gene commonly downregulated in human prostate cancer. American Association for Cancer Research (AACR) Annual Meeting Washington, D.C.
8. **Bernard Kwabi-Addo**, Songping Wang, Joseph Devaney (2014). Epigenome-wide profiling identified significant differences in DNA methylation between African American and European American men with prostate cancer. American Association for Cancer Research (AACR) Annual Meeting San Diego, CA.
9. **Bernard Kwabi-Addo**, Emmanuel Moses-Fynn, Wei Tang, Desta Beyene, Victor Apprey and Yasmine Kanaan (2018). Correlating blood-based DNA Methylation Markers and Prostate Cancer Risk Factors in African American men. American Association for Cancer Research (AACR) Annual Meeting Chicago, IL.
10. **Bernard Kwabi-Addo**, Yiqun Zhang, Somiranjana Ghosh, Michael Ittmann and Chad Creighton (2023). Comparative and integrative analysis of Transcriptomic and Epigenomic-wide DNA Methylation changes in African American Prostate Cancer. American Association for Cancer Research (AACR) Annual Meeting Orlando, FL.

INVITED SEMINARS & TALK AT SCIENTIFIC MEETINGS

National and International Meetings

- Invited Speaker, American Association for Cancer Research (2004). Title: Sprouty1, an inhibitor of Fibroblast Growth Factor Signals is Down-regulated in Prostate Cancer. Orlando, FL.
- Invited Speaker, Johns Hopkins School of Public Health LunchLink (2010). Title: Age-Related DNA Methylation Changes. Baltimore, MD.
- Invited Speaker, Advancement of Biomedical Research Excellence (PR-AABRE/NIH) (2008). Title: Age-Related DNA Methylation Changes and Prostate Cancer. San Juan, PR.
- Invited Speaker, NCI Cancer Health Disparities Summit (2008). Title: Age, Sex Steroids, Inflammation, and Prostate Cancer DNA Methylation. Rockville, MD.
- Invited Speaker, Howard-Hopkins Joint Scientific Symposium. Johns Hopkins University (SKCCC) (2009). Baltimore, MD.

- Invited Speaker and Chairperson. American Association for Cancer Research (2011). Title: Tools in Epigenetic. Washington D.C.
- Invited Speaker at Clark Atlanta 7th Annual National Prostate Cancer Symposium (2011). Title: Differential DNA Methylated Changes May Potentially Contribute to Prostate Cancer Disparity in African American and Caucasian Men. Atlanta, GA.
- Chairperson, American Association for Cancer Research Health Disparities Conference (2011). Title: Epigenome, Tools and Technologies. Washington D.C.
- Invited Speaker, Summer Research Course, Meharry Medical College (2012). Title: Genomic and Epigenetic Alterations in Prostate Cancer. Nashville, TN.
- Invited Speaker, Ghana Physicians & Surgeons Conference (2014). Title: The Global Burden of Cancer- Causes and Controversies. Atlanta, GA.
- Invited Speaker at the American Urological Association Summer Research Conference (2016). Title: Epigenetics Underpinnings of Prostate Cancer Disparities in African American men. Linthicum, MD.
- Invited Speaker, Johns' Hopkins Bloomberg School of Public Health (2017) Lunchlearn. Title: Health Outcomes in a Foreign Land- A Role for Epigenomic and Environmental Interaction. Baltimore, MD.
- Invited Speaker at the North Carolina Central University Cancer Program Seminar Series (2018). Title: A Role for Gene-Environment Interaction in Health Disparities. Durham, N. Carolina.
- Invited Speaker at Thomas Jefferson University Sidney Kimmel Medical College Grand Rounds (2018). Title: Gene-Environmental Interaction in Driving Health Disparities Philadelphia, PA.
- Invited Speaker at Ghana Physicians and Surgeons Foundation 18th Annual (Virtual) Conference (2021). Title: Current Concepts in Health Disparities
- Invited Speaker at the NIH/NIMHD RCMI National (Virtual) Conference (2021). Title: Comprehensive Characterization of Epigenetic Changes and Prostate Cancer Disparity.
- Invited Speaker at the Holden Comprehensive Cancer Center Grand Rounds (2023). Title: Addressing Health Disparities: Post COVID 19 Era. (Iowa City, Iowa).

Intramural and local Meetings

- Invited Speaker, Howard-Hopkins LongView Seminar Series. Howard University (2007), Washington, DC.
- Invited Speaker, Howard-Hopkins LongView Seminar Series, Howard University (2007). Washington DC.
- Invited Speaker, Howard University, Department of Pharmacy Seminar (2009). Washington, DC.
- Invited Speaker, Howard University Department of Biochemistry & Molecular Biology Seminar (2010). Washington, DC.
- Invited Speaker, Twenty-second Annual Graduate Research Day, Department of Biochemistry, Howard University (2011). Title: investigating the Molecular Mechanisms Regulating Gene Expression in Prostate Cancer. Washington DC.
- Invited Speaker, Frontiers in Stem Cells in Cancer, Howard University (2012). Title: Epigenetics and Prostate Cancer. Washington D.C

- Invited Speaker, Howard-Hopkins Health Disparities Scholars Research Training program, National Human Genome Center (2012). Title: Current Concepts of Driving Health Disparities. Washington DC.
- Speaker and Book signing (2012). Title: Cancer Causes and Controversies, Louis Stokes Health Sciences Library, Howard University, Washington DC.
- Invited Speaker, Howard University Research Day (2013). Title: Identification of Novel DNA Methylation Biomarkers Associated with Human Prostate Cancer and High Grade Prostatic Intraepithelial Neoplasia. Washington DC.
- Invited Speaker, Department of Pharmacology, Howard University (2014). Title: Epigenetics and Disease Risk, A Pharmacogenomics Perspective. Washington DC.
- Invited Speaker, Center for Clinical & Translational Sciences (GHUCCTS; 2015). Title: Studies of Aberrant Epigenetic DNA Methylation Changes. Washington DC.
- Invited Speaker, Howard University Research Symposium (2015). Title: The Role of Epigenetic and Genetic Alterations in Prostate Cancer Disparities. Washington DC.
- Invited Speaker, General Clinical Research Center, Howard University Hospital (2016). Title: Current Concepts in Prostate Carcinogenesis. Washington DC.
- Invited Speaker at Howard University Research Centers in Minority Institution (RCMI), Symposium (2016). Title: Epigenetic Underpinnings of Prostate Cancer Disparities in African American Men. Washington DC.
- Oral presentation, Howard University Research Symposium (2017). Why cancer prevention and early detection must be priority. Washington DC.
- Oral presentation, Howard University Research Symposium (2018). Title: A Role for Gene-Environment Interaction and Health Disparities. Washington DC.
- Invited Speaker at Howard University Hospital Grand Rounds (2019). Title: Current Concepts Underlying Health Disparities. Washington DC.
- Invited Speaker at Howard University Pediatric Grand Rounds (2022). Title: Chronic Diseases- The Indisputable Scientific Evidence. Washington DC.

TEACHING ACTIVITIES

Medical Courses

2011 (Fall)- Present

I give lectures on the topic of “Blood Coagulation” and serves as a facilitator in Team Based Learning (TBL)/Active Learning (case-based small group discussions and quizzes on various topics in biochemistry and molecular biology).

Dental Courses

2013 (Fall)- Present

I give lectures in Blood Coagulation and Biochemistry of Hormonal signaling. I also serve to facilitate dental students’ discussions, exam reviews and exams.

Graduate Courses

2013 - Present

Lecture on topics in Epigenetic mechanisms in carcinogenesis and Hallmarks of cancer and Signal transduction pathways in cancer.

MENTORING STUDENTS AND POSTDOCTORAL FELLOWS

POSTDOCTORAL FELLOWS

May 2022- Present

Dr. Mohammad Khan. Project: Investigating the biological function of novel genes and epigenetic regulations in prostate cancer disparities.

March 2020- June 2021

Dr. Krishma Tailor. Project: Investigating the role of epigenetic-mediated differential gene expression in Prostate Cancer Disparities.

Jan. 2009- Nov. 2010

Dr. Mohammad Daremipouran. Project Title: NKX2-5, a Potential Tumor Suppressor Gene is Down-Regulated in Prostate Cancer.

GRADUATE STUDENTS

June 2019- September 2020

Joseph Paul. Project Title: Investigating the tumor suppressor function of RASAL2 in prostate cancer.

Jan. 2014- May 2016

Emmanuel Moses-Fynn. Project Title: Investigating the Role of Orthopedia Homeobox in Prostate Epithelial Cell Cycle Regulation. He obtained PhD degree in 2016; now working with New England Health Services)

June 2011- Aug. 2013

Rana Tbaishat. Title of thesis: ZNF783, a novel Zinc finger protein has tumor suppressor function in prostate cancer. She obtained her PhD degree in 2013.

Jan. 2012- June 2014

Sylvia Dasi Title of thesis: Methylation in the P0 and P1 Promoters of *ESRα* in Breast Cancer Cell Lines. She obtained her PhD degree in 2014.

UNDERGRADUATE STUDENTS

Feb. 2023- Present

Fathia Oladipupo: Teaching student various biochemical and molecular biology techniques.

May 2022- Aug. 2022

Nuha Mohammad: Enhancing Data Science Capability and Application at Howard University.

Howard University Medical Student Summer Research Project:

- Robert Davis: Project Title: Investigating DNA methylation changes pro-inflammatory cytokines in Prostate Cancer cells (2015).
- Phayon Lee, Project Title: 2,3-Dichloro-5,8-Dimethyl-1,4-Naphthaquinone mediates DNA methylation changes in prostate cancer cell lines (2013).
- Joshua Long, Project Title: SHC4 and PAQR5, novel genes hypermethylated in prostate cancer (2012).
- Delaram Taghipour, Project Title: Aberrant DNA Methylation of GNMT and LEO1 in the carcinogenesis of aggressive and African American prostate cancer cell lines (2012).

- Bolanle Abayomi, Project Title: Correlating the Expression of PVT1, FAM84B and c-MYC in prostate cell lines (2011).
- W. Alexander Ellis, Project Title: Regulation of Tumor Suppressor Genes by NKX 2.5 in Prostate Cancer (2010).
-

Leadership Alliance’s Summer Research Early Identification Program (SR-EIP)

- Andres Lojano-Bermeo; Project Title: Investigating the effects of epigenetic drugs on prostate cancer cell proliferation and gene expression. Obtained travel Scholar to attend and present work in poster session at the ABRCMS Conference (November 2016), Tampa, FL.
- Selma Mumuni, Project Title: Investigating DNA methylation changes pro-inflammatory cytokines in Prostate Cancer cells. Co-author on a publication: Sex steroid-induced DNA methylation changes and inflammation response in prostate cancer (Summer 2015). Wang S, Clark PA, Davis R, Mumunui S, **Kwabi-Addo B** Cytokine 2016; 86: 110-118.
- Aperecio Peggins, Project Title: Investigating epigenetic tools in prostate cancer cell lines. A summer student from Morehouse College, Atlanta, GA for the Leadership Alliance’s Summer Research Early Identification Program (SR-EIP; 2012) through the Howard University Provost’s Office, Howard University, Washington, DC.

MS Students:

- Katie Woronow. Project Title: Characterizing Molecular Intermediates in a panel of prostate cell lines derived from both African American and European-American men (2011- 2012)

SERVICE ACTIVITIES

INTRAMURAL SERVICES:

Departmental

2013-2014	Member, Executive Committee (advice chairman of department)
2012-Present	Co-coordinator, Seminar Series
2012, 2018, 2023	Judge, Research Day

Student Dissertation Advisory and Examination Committees

- Member of Committee for **Sylvia Dasi**; Advisor: Dr. Yasmine M Kanaan (2012-Present)
- Student Qualifying Examination Committee: Two students; **Garima Bansal** (Summer 2012, Oral exam) and **Grace Mavodza** (Spring 2013, Oral exam).

UNIVERSITY-WIDE

2022- Present 2013	Member, Executive committee- College of Medicine Speaker, National Youth Leadership Forum, Howard University College of Medicine, Washington, DC.
2013	Committee member, Search for Director for Cancer Center Howard University, Washington, DC.
2012	Mentor (Aperocio Peggins, a summer student from Morehouse College, Atlanta, GA) for the Leadership Alliance’s Summer Research Early Identification Program (SR-EIP) through the Howard University Provost’s Office, Howard University, Washington, DC.
2012	Member of Liaison Committee on Medical Education (LCME) committee

EXTRAMURAL SERVICES: REVIEW AND JOURNAL EDITORIAL BOARD

Research Grants Review:

2009- Present	Reviewer for Department of Defense CDMRP (PCRP)
2010- Present	Reviewer, NIH/CSR
2020- Present	Reviewer, Florida Department of Health Biomedical Research Program Review
2020	Reviewer, NIMHD- Research Centers in Minority Institution (RCMI) Special Emphasis Grant Review
2013-2019	Editorial Board, BioMed Research International (Hindawi Publishing Corporation)
2011-Present	Manuscript reviewer for PLoS One Journal

PUBLIC EDUCATION, AND COMMUNITY OUTREACH ACTIVITIES
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- Guest Speaker, Cancer Prevention and Early Detection Topics (2012). Ofori Panin
- Secondary School USA Alumni Annual Event, Woodbridge, VA.
- Judge, Science-Fair (2013), Rippon Middle School, Woodbridge VA 2020
- Speaker, Okwahuman Association of Virginia (2013); Colorectal Cancer Awareness
Month, Ebenezer Presbyterian Church, Woodbridge, VA
- Invited Guest, Radio (WHUR 96.3 FM) Talk Show with President Wayne Frederick
“The
- Journey (2017): Howard University Research Week- Imaging World Solutions”.
- Speaker, Presbyterian Church. Cancer Prevention Talk (2017). Woodbridge, VA.
- Speaker, 5TH United States Conference on African Immigrant Health (2017), Crystal
City, VA.
- Judge, Science Education (2017), AACR-Annual Meeting, Washington DC
- Speaker, The Patcha Foundation. Cancer Diagnosis, Treatment, Prevention and
Advancement (2018). Closing The Health Disparities Gap. Washington D.C
- Guest speaker, The Kenya community of N. Virginia (2018). Word of Life
Assemblies of God. Title: Cancer –Understanding Causes, Risk Reduction and
Prevention. Springfield, VA.

- Speaker, Okwahuman Association in N. Virginia (2020). Colorectal Cancer Awareness Month.
- Radio and TV interviews on Factors Driving Chronic Diseases (2021). CiTi FM, Accra, Ghana.
- Marjy TV- Humanity Chats (2021). How to Eliminate Chronic Diseases Virtual Health Talk. Church of Pentacost (2022); Ottawa District Women’s Ministry, Ottawa, Canada
- Health and Wellness Expo. Word of Life Assemblies of God (2022), Springfield, Virginia.

MEMBERSHIP IN PROFESSIONAL SOCIETIES

2000-Present
2022-Present

Active member, American Association for Cancer Research
Member, American Association for Advancement of Science