OMB No. 3145-0279 (Expiration Date 10/31/2026)

NIH BIOGRAPHICAL SKETCH COMMON FORM

Name: Harlan-Williams, Lisa M

Persistent Identifier (PID) of the Senior/Key Person: https://orcid.org/0000-0003-4612-8192

Position Title: Associate Professor of Education, Cell Biology and Physiology

Organization and Location: The University of Kansas Medical Center, Kansas City, Kansas, United States

PROFESSIONAL PREPARATION

INSTITUTION AND LOCATION	DEGREE	Start Date	Completion Date	FIELD OF STUDY
The University of Kansas Medical Center, Kansas City, Kansas, United States	Other (OTH)	02/2005	02/2007	Postdoctoral Fellowship - Breast Cancer Biology
H. Lee Moffitt Cancer Center & Research Institute, Tampa, Florida, United States	Other (OTH)	01/2004	01/2005	Postdoctoral Fellowship - Cancer Immunology
University of Kansas, Lawrence, Kansas, United States	DOCTOR OF PHILOSOPHY	08/1996	12/2003	Molecular Genetics - Immunology
Henderson State University, Arkadelphia, Arkansas, United States	Bachelor of Science (BS)	08/1992	05/1996	Biology

Appointments and Positions

2005 - present	Associate Professor of Education, Cell Biology and Physiology, The University of Kansas Medical Center, Kansas City, Kansas, United States
2024 - present	Associate Director for Education, The University of Kansas Medical Center, The University of Kansas Cancer Center, Kansas City, Kansas, United States
2020 - present	Associate Professor of Education, The University of Kansas Medical Center, Cell Biology and Physiology, Kansas City, Kansas, United States
2009 - 2020	Research Assistant Professor, The University of Kansas Medical Center, Anatomy & Cell Biology, Kansas City, Kansas, United States
2008 - 2024	Assistant Director for Administration and Education, The University of Kansas Medical Center, The University of Kansas Cancer Center, Kansas City, Kansas, United States
2007 - 2009	Senior Scientist, The University of Kansas Medical Center, Kansas City, Kansas, United States
2005 - 2007	Postdoctoral Fellow, The University of Kansas Medical Center, Roy Jensen, Kansas City, Kansas, United States

Products

Products Closely Related to the Proposed Project

1. Wood S, Hines J, Horton P, Leib J, Hembruff S, Krebill H, Lee SC, Harlan-Williams LM. Oncology Workforce: More than Meets the Eye. J Cancer Educ. 2025 Nov 15; PubMed Central PMCID: PMC13003541.
2. Hembruff S, Dekonenko A, Thyfault JP, Sardiu ME, Washburn MP, Mackintosh SG, Byrum SD, Jensen RA, Harlan-Williams LM. BRCA1 influences whole body metabolism in humanized mice. Am J Physiol Endocrinol Metab. 2025 Jun 1;328(6):E979-E993. PubMed Central PMCID: PMC12167638.
3. Harlan-Williams LM, Pomeroy M, Moore WT, Chang K, Koestler DC, Nissen E, Fife J, Ramaswamy M, Welch DR, Jensen RA. Summer Cancer Research Experience for High School Students from Historically Marginalized Populations in Kansas City. J STEM Outreach. 2024 Feb;7(2) PubMed Central PMCID: PMC10906810.
4. Wickliffe JL, Coates T, Rodas J, Pomeroy M, Carrillo U, Alonso Luaces M, Twillman N, Ilabaca-Somoza X, Meyer M, Harlan-Williams L, Ramaswamy M. Description of a 20-Yearlong Initiative to Bring STEM Career Exploration to Urban Minority Youth in Kansas City, Kansas: Multi-sector Investment and Program Evolution. Journal of STEM Outreach. 2020; 3(2):1-13. Available from: https://doi.org/10.15695/jstem/v3i2.04
5. Zink H, Goldman J, Mosconi M, Sosnoff J, Harlan-Williams L, Nicole N. Cultivating Future Leaders: A Review of the Role

of Mentorship in the Clinical Translational Research Workforce. Journal of Research Administration. 2026 April 06; 57(2). Available from: https://www.srainternational.org/blogs/srai-jra2/2026/04/02/cultivating-future-leaders-a-review-of-the-role-of

Other Significant Products Highlighting Contributions to Science

1. Li D, Harlan-Williams LM, Kumaraswamy E, Jensen RA. BRCA1-No Matter How You Splice It. Cancer Res. 2019 May 1;79(9):2091-2098. PubMed Central PMCID: PMC6497576.
2. Li D, Kumaraswamy E, Harlan-Williams LM, Jensen RA. The role of BRCA1 and BRCA2 in prostate cancer. Front Biosci (Landmark Ed). 2013 Jun 1;18(4):1445-59. PubMed PMID: 23747895.
3. Stecklein SR, Kumaraswamy E, Behbod F, Wang W, Chaguturu V, Harlan-Williams LM, Jensen RA. BRCA1 and HSP90 cooperate in homologous and non-homologous DNA double-strand-break repair and G2/M checkpoint activation. Proc Natl Acad Sci U S A. 2012 Aug 21;109(34):13650-5. PubMed Central PMCID: PMC3427093.
4. Shae W, Islam Saif MS, Fife J, Mudaranthakam DP, Pei D, Harlan-Williams L, Thompson JA, Koestler DC. Utilizing natural language processing to identify cancer-relevant publications at a National Cancer Institute-designated cancer center. JAMIA Open. 2025 Dec;8(6):ooaf156. PubMed Central PMCID: PMC12696645.
5. Mudaranthakam DP, Harlan-Williams LM, Jensen RA, Kuo H, Garimella V, Chen RC, Mayo MS, Krebill H. OPTIK: a database for understanding catchment areas to guide mobilization of cancer center assets. Database (Oxford). 2020 Jan 1;2020 PubMed Central PMCID: PMC7491207.

Certification:

I certify that the information provided is current, accurate, and complete. This includes, but is not limited to, information related to current, pending, and other support (both foreign and domestic) as defined in 42 U.S.C. § 6605.

In accordance with Section 10632 of the CHIPS and Science Act of 2022 (42 U.S.C. § 19232), each individual identified as a senior/key person must certify that they are not a party to a malign foreign talent recruitment program.

Research Security Training Requirement for Federal Award Personnel: In accordance with Section 10634 of the CHIPS and Science Act of 2022 (42 U.S.C. § 19234), each individual identified as a senior/key person must certify that they have completed the requisite research security training that meets the requirements specified in Item 2 of Important Notice No. 149 within 12 months prior to proposal submission.

Misrepresentations and/or omissions may be subject to prosecution and liability pursuant to, but not limited to, 18 U.S.C. §§287, 1001, 1031 and 31 U.S.C. §§3729-3733 and 3802.

Certified by Harlan-Williams, Lisa M in SciENcv on 2026-08-07 16:47:29

OMB No. 0925-0001 (Expiration Date 12/31/2027) and No. 0925-0002 (Expiration Date 11/30/2027)

NIH BIOGRAPHICAL SKETCH SUPPLEMENT

Name: Harlan-Williams, Lisa M

Persistent Identifier (PID) of the Senior/Key Person: https://orcid.org/0000-0003-4612-8192

Position Title: Associate Professor of Education, Cell Biology and Physiology

Organization and Location: The University of Kansas Medical Center, Kansas City, Kansas, United States

Personal Statement

I am an Associate Professor of Education in the Department of Cell Biology and Physiology at the University of Kansas Medical Center. For nearly 30 years, I have developed, implemented, evaluated, and led education and training programs that support learners across the full continuum of career development, including middle school, high school, undergraduate, graduate, medical, and postdoctoral trainees, as well as junior faculty. While my scholarly work for more than 20 years has focused on the role of BRCA1 in breast cancer tumorigenesis and metabolic signaling (Hembruff et al., 2025), my professional passion and primary leadership responsibilities at The University of Kansas Cancer Center (KUCC) focus on cancer education, workforce development, and mentorship.

Since 2024, I have served as Associate Director for Education at KUCC, where I lead the Cancer Research Training and Education Coordination (CRTEC) component of the Cancer Center Support Grant (P30CA168524, PI: Jensen). In this role, I provide strategic leadership for education, training, mentoring, and career development activities across KUCC. My responsibilities include program development and coordination, outcomes assessment and trainee tracking, mentor development, and fostering collaborations among research programs, shared resources, and community outreach initiatives. My national leadership in cancer education is reflected in service on NIH study sections focused on research training and workforce development, including R25, T32, and K12 training mechanisms. I also serve on the Board of Directors of the Cancer Biology Training Consortium, where I contribute to national efforts focused on cancer workforce development, graduate and postdoctoral training, and best practices in cancer education.

A major focus of my career has been creating sustainable pathways into biomedical and cancer research careers (Wood et al., 2025). I created and direct the KUCC Accelerate Cancer Education Program, an immersive summer research experience for high school students (Harlan-Williams et al., 2024). Through partnerships with educational and community organizations, the program has expanded opportunities for students who may not otherwise have access to academic research environments and has served as a model for sustainable STEM education programming (Wickliffe et al., 2020).

I also work with faculty to develop and expand cancer-focused training opportunities and education grant programs. I co-developed the KUCC Paul Calabresi K12 Career Development Award in Clinical Oncology (K12CA279868, PI: Chen) and support career development programming for emerging clinical and translational investigators. In addition, I am a trained facilitator for the Center for the Improvement of Mentored Experiences in Research mentor training program. I lead mentor training efforts at KUCC and help train faculty and trainees in evidence-based mentoring practices designed to strengthen mentoring experiences (Zink et al., 2026). My approach to mentoring emphasizes intentional career development and the creation of supportive learning environments that foster scientific identity, confidence, and long-term success.

Collectively, my experience leading cancer education and training programs, directing mentoring and career development initiatives, and evaluating training outcomes qualify me to lead CRTEC and develop the next generation of cancer researchers, clinicians, educators, and scientific leaders.

Honors

2025	Board of Directors, CABTRAC
2023	School of Medicine representative, Academic and Professional Committee, University of Kansas Medical Center
2022	Directors Award - Closing Disparities, University of Kansas Cancer Center
2015	School of Medicine representative, Executive Council of WIMS, University of Kansas Medical Center
2001	Robert H. Ammar Graduate Teaching Award, University of Kansas
2000	Wlliam Arnold Award for Service, University of Kansas
2000	Cora M. Downs Award for Women in Science, University of Kansas

1999	Kenneth B. Armitage for Excellence in Teaching, University of Kansas
1996	Cum Laude, Henderson State University

Contributions to Science

1. For nearly 30 years, I have dedicated my career to developing, implementing, and evaluating educational programs that strengthen the cancer research and healthcare workforce. My contributions have focused on three interconnected areas: building early-stage workforce development programs that increase awareness of cancer-related careers (Wood et al,, J Cancer Education, 2025); creating immersive research experiences that foster scientific identity, career readiness, and entry into biomedical pathways (Harlan-Williams et al., J STEM Outreach, 2024 and Wickliffe et al., J STEM Outreach 2020); and promoting effective mentoring practices to support career advancement across the research workforce (Zink et al., J Research Administration, 2026). Collectively, my work has contributed to the evidence base supporting cancer education, workforce development, and mentoring and has informed strategies for preparing the next generation of cancer researchers, clinicians, educators, and leaders.

2. Since 2005, I have worked closely with Roy Jensen, MD, developing expertise in BRCA1 biology and its role in breast cancer development and progression. As a postdoctoral fellow and subsequently as an independent investigator, I developed the scientific rationale, research aims, and experimental strategies while mentoring trainees and research personnel in project execution. These efforts resulted in important discoveries regarding the molecular pathways controlling BRCA1 activity and its influence on DNA damage response, genomic stability, and cancer cell biology. Specifically, our lab identified BRCA1 as a previously unrecognized client protein of HSP90, demonstrating cooperative roles for BRCA1 and HSP90 in DNA repair and cell-cycle checkpoint control (Stecklein et al., PNAS, 2012). I also initiated studies investigating the role of BRCA1 in metabolic signaling and breast cancer cell metabolism, expanding our understanding of how BRCA1 influences pathways beyond DNA repair (Hembruff et al., Am J Physiol Endocrinol Metab, 2025). Through investigations of BRCA1 alternative splicing and the functions of BRCA1 and BRCA2 in breast and prostate cancer, my work has further contributed to the molecular understanding of BRCA1 (Li et al., Cancer Research, 2019 and Li et al., Front Biosci, 2013). Collectively, this work has advanced understanding of BRCA1 biology and provided insights into potential therapeutic strategies for BRCA1-associated cancers.

3. My collaborative work with biostatistics and data science colleagues has contributed to identification of cancer-relevant publications, evaluating automated and semi-automated approaches relative to traditional manual methods. This work highlighted opportunities to increase efficiency and reproducibility in institutional reporting processes. Building on this foundation, our team applied natural language processing techniques to systematically classify cancer-related publications, demonstrating the potential for scalable, data-driven approaches to support Cancer Center Support Grant reporting and research portfolio analysis (Shae et al., JAMIA Open, 2025).

   In parallel, I collaborated on the development of the OPTIK database, which integrates population-level and geographic data to better define cancer center catchment areas and inform strategic deployment of resources (Mudaranthakam et al., Database (Oxford), 2020. This work supports data-driven decision-making by linking research activities to regional cancer burden and needs. Collectively, these contributions reflect effective interdisciplinary collaboration and demonstrate the value of integrating informatics, biostatistics, and programmatic expertise to strengthen cancer center infrastructure and impact.

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