

Hadiyah-Nicole Green, Ph. D.



The St. Louis, Missouri native graduated with honors from University City High School after serving four consecutive terms as class president. Hadiyah was awarded a full academic scholarship to attend Alabama Agricultural & Mechanical University (AAMU) in Normal, Alabama where she became the founding President of the Greater St. Louis Student Association during her freshman year. Her outgoing personality, leadership skills, public speaking aptitude, and volunteer efforts afforded her the treasured opportunity to be chosen the official representative of the institution as Miss Alabama A&M University 2002-2003. She graciously accepted the nickname ‘Queen’ for she embraced the African-centered example of substance and leadership over pageantry. During the same year, she published a book of inspirational poetry entitled “I Flow” and maintained a 4.0 G.P.A. in Physics, and a 3.84 overall G.P.A. She has organized over 100 community service initiatives and served as president of various organizations more than 15 times. After graduating with honors from Alabama A&M University with a Bachelor’s of Science degree in Physics with a minor in Mathematics in 2003, Hadiyah joined the sisterhood of Delta Sigma Theta Sorority, Incorporated, St. Louis Alumnae Chapter.

As a scientist, she has conducted research at NASA Marshall Space Flight Center; University of Rochester, Institute of Optics; Alabama A&M University Fiber Optics Laboratory; University of Maryland, Laboratory for Physical Science; The University of Alabama at Birmingham, Center for Optical Sciences and Spectroscopies; and The Comprehensive Cancer Center, School of Medicine Department of Surgery. As a civil servant with the Department of Defense, she obtained a Top Secret security clearance. She has more than ten years of training and research experience, initially in optics and nanotechnology and subsequently in the applications of nano-bio-photonics to cancer research.

During her educational tenure, Hadiyah received the Best Poster Award at the 3rd International Conference from Nanoparticles & Nanomaterials to Nanodevices & Nanosystems in Heraklion, Crete, Greece, and the Platinum Poster Award at the National Science Foundation Experimental Program to Stimulate Competitive Research Conference in Waikoloa, Hawaii. Hadiyah also received honors including: National Physical Science Consortium Fellow, Graduate Assistance in Areas of National Need Fellowship, National Science Foundation Bridge to the Doctorate Fellowship, National Science Foundation Graduate Student Research Program Fellowship Honorable Mention, David and Lucille Packard Foundation Fellowship, AAMU Presidential Scholarship, Who’s Who Among American College Students, The National Dean’s List, National Society of Black Engineers Torch Bearer Award, NASA Space Grant Consortium Scholarship recipient, AAMU President’s Award for 4.0 G.P.A., AAMU School of Arts and Sciences Dean’s List, AAMU Excellence in Scholarship Award, Tom Joyner Scholarship recipient, Washington University Book Award, Sue Shear Book Award, Dr. MLK Jr. Youth Awareness Award, and “I Dare You” Leadership Award. In addition, her poetry has been

recognized by the International Library of Poetry: Poet of the Year for 2005 nominee, International Poet of Merit Award, Outstanding Achievement in Poetry Silver Award, Editor's Choice Award, and Honorary Member of the International Society of Poets.

During her education pursuits, Hadiyah presented to affiliates of The United States Congress on the importance of funding scientific research as a student representative for the Society of Photo-Optical Instrumentation Engineers (SPIE). In her efforts to encourage women and underrepresented minorities to pursue higher education in the science, engineering, mathematics, and technology fields, Hadiyah made guest appearances on "The Valerie Hicks Powe Show" and served as a panelist at numerous Teen Summit forums in the Birmingham area. She was a Graduate Student Representative for the Golden Key International Honour Society and mentored the undergraduate members of the Black Student Awareness Committee. She has served the American Association of the Advancement of Science, the National Society of Black Physics Students, UAB Black Graduate Student Association, Birmingham Urban League Young Professionals, The Greater Birmingham Chapter of Alabama A&M University Alumni Association, and Delta Sigma Theta Sorority, Incorporated, Birmingham Alumnae Chapter. She has also served in the Music, Tutorial, His Hands, and Girl Scout Ministries at Sixth Avenue Baptist Church.

Hadiyah began her career in the Physics Doctoral Program at The University of Alabama at Birmingham with the vision of using lasers to treat cancer in a manner that is more localized and less devastating than chemotherapy and radiation. She pioneered the partnership between the Physics Department and the Comprehensive Cancer Center at The University of Alabama at Birmingham. She invested a significant amount of time learning the skills necessary for biocompatible nanoparticle fabrication and characterization, antibody conjugation chemistry, fluorescent labeling for early detection, and extensive molecular, cellular, and animal research techniques. Her dissertation was entitled, "A Minimally Invasive Multifunctional Nano-Enabled Approach for Selective Targeting, Imaging, and Near Infrared Photothermal Therapy of Malignant Tumors." The result of this work was the development of patent-pending technology for three techniques including a 3-in-1 system for early detection, targeting, and selective treatment of tumors and a nanoparticle-enabled 10-minute laser treatment that results in ~100% tumor shrinkage.

Hadiyah-Nicole Green is the 2nd African American woman and the 4th African American to receive a Ph.D. in Physics in the history of The University of Alabama at Birmingham. Dr. Green is currently an Assistant Professor in the Materials Science and Engineering Department at the historic Tuskegee University.