DR. REBECCA LEE CRUMPLER

1831 - 1895

Dr. Rebecca Lee Crumpler was the first Black woman to earn a medical degree in the United States. A true pioneer, she battled deep-seated prejudice against women and African Americans in medicine.

Born in Delaware in 1831, Dr. Crumpler was raised by an aunt in Pennsylvania who often helped care for sick neighbors. Those early experiences made her want to work to "relieve the suffering of others." In the early 1850s she moved to Massachusetts and became a nurse.

Dr. Crumpler earned a place at the New England Female Medical College (NEFMC) in 1860. The school was the first in the country to train women M.D.s. At the time, many men argued that women were too delicate or not intelligent enough to be doctors. Most medical schools barred Black students regardless of gender. The NEFMC initially trained women to work only as midwives, which reflected its founder Samuel Gregory's belief that it was improper for male doctors to assist with childbirth. But by the time Dr. Crumpler attended, the curriculum had expanded to encompass a more complete medical education.

Dr. Crumpler graduated from NEFMC in 1864, becoming the first female African American doctor. Her official degree was "Doctress of Medicine." She began practicing in Boston, but at the end of the American Civil War found herself drawn to Richmond, Virginia as a "proper field for real missionary work." She collaborated with charity and missionary groups to care for freed African Americans. Many of her patients were very poor people who would otherwise have had no access to medical care. The enormous needs of these patients, and the discrimination they faced from many white doctors, encouraged an increasing number of African Americans to seek medical training.

Dr. Crumpler returned to Boston in the late 1860s and treated patients in Beacon Hill, at the time a mainly Black neighborhood, and regardless of whether they could pay. In 1883, she published A Book of Medical Discourses, which chronicles her experiences as a doctor and provides guidance on maternal and child health.

SCAN TO READ ABOUT HOW DR. CRUMPLER WAS RECOGNIZED 125 YEARS AFTER HER PASSING

DR. GEORGIA ROOKS DWELLE

1884 - 1977

Georgia Rooks Dwelle attended Spelman College (then Spelman Seminary) in Atlanta. In 1900 she became the school's first graduate to go on to medical school – Meharry Medical College in Nashville, Tennessee. From there, she worked tirelessly, against all odds and faced with constant discrimination to create her own opportunities in building what became a remarkable career in medicine filled with pioneering firsts and a long record of service and care.

In 1904, after earning her medical degree (with honors), Dr. Dwelle returned to her home state and received the highest score on the Georgia State Medical Board examination that year. She became one of only three African American women physicians in Georgia at that time, and practiced in Augusta for two years before moving to Atlanta in 1906.

Upon her arrival in the Georgia capital, Dr. Dwelle, quite possibly the very first female African American physician in Atlanta, witnessed the dire poverty and terrible conditions in which many of the city's poorest black residents lived and the lack of medical care they received. She was determined to set up a practice where conditions would be sanitary and proper services would be offered. Despite considerable hardship and discrimination, Dr. Dwelle "continued to believe that no profession was better suited to serve humanity than medicine and that 'competent women physicians' could find or create their own opportunities within the profession if they had to." With that, Dr. Dwelle rented a few rooms, cleaned them well, and added two beds. It was the beginning of the Dwelle Infirmary, Atlanta's first general hospital for African Americans and the first "lying-in" obstetrical hospital for African American women. It was officially incorporated in 1920 and operated from those same rented rooms for twenty-seven years.

SCAN TO READ DR. DWELLE'S BIO AT THE NIH'S CHANGING THE FACE OF MEDICINE

ALICE BALL

1892 - 1916

Fifty years before the first women walked through the doors at most Ivy League schools, Alice Augusta Ball earned a master's degree, the first woman—and first African-American woman—to do so at the University of Hawai‘i. The first woman instructor in the UH chemistry department, her work in 1916 led to the first treatment for Hansen's disease, bringing hope to thousands of patients who had previously only known despair. And she was very nearly lost to history.

Ball earned bachelor's degrees in pharmaceutical chemistry and pharmacy and accepted a scholarship from the university then known as the College of Hawai‘i. Her master's thesis on extracting the active chemical in awa roots made her uniquely qualified for research with the Hawai‘i chemistry department, where she was the first to reconfigure an oil extract from the chaulmoogra tree for the treatment of leprosy.

Although chaulmoogra in ointment form had for a long time relieved some patients' discomfort, Ball's work resulted in the first injectable treatment. Other medicines for the disease came along years later, but long after her tragic death in 1916 at the age of 24, her discovery still provided the first hope. It remained the most effective treatment until the 1940s.

Sadly, Ball did not receive credit for her scientific contribution for many years. She died before she could publish her findings, and another chemist continued her research and published it as his own. Then in 1922, a U.S. public health officer in Hawai‘i named Dr. Harry Hollmann published an article explaining how he had approached the young chemistry instructor to apply her expertise to extracting the essence of the chaulmoogra tree. Referring to her process as "Ball's Method," Hollmann's effort to give Ball her due attribution "rescued Alice Augusta Ball from the charnel houses of history, and gave her the credit she deserved for the remarkable work she accomplished," writes Paul Wermager in a chapter he contributed to *They Followed the Trade Winds: African Americans in Hawai‘i*.

SCAN TO READ ABOUT ALICE BALL IN SMITHSONIAN MAGAZINE

DR. LENA EDWARDS

1900 - 1986

A Presidential Medal of Freedom recipient, Dr. Lena Frances Edwards, MD, was one of the first African American women to be board-certified as an obstetrician-gynecologist as well as to gain admission to the International College of Surgeons. Throughout her career she served the poor, lobbying for better health care for anyone who needed it, regardless of what they could afford.

Dr. Edwards graduated from Howard University in 1921 and Howard University Medical School in 1924. She opened a private practice in Jersey City, NJ, where treated poor and immigrant factory workers and their families. She also founded Porte Cache, a professional and philanthropic club for Black college-educated women, the first of its kind in Jersey City.

When the Margaret Hague Maternity Hospital opened in 1931, Edwards became a staff physician, but she was denied a residency in obstetrics and gynecology for almost fifteen years. After her acceptance in 1945, she completed the mandatory two-year residency and was one of the first National Board-certified Black female obstetrician-gynecologists in the United States. Edwards was eventually appointed an Assistant Attending at the Maternity Hospital. In 1954, she left Jersey City to teach obstetrics at Howard University Medical School.

But by far, her most extraordinary accomplishment was that, at the age of sixty, she interrupted her practice to do missionary work at Hereford, Texas, among Mexican migrant farmworkers. She also began a modern maternity hospital named Our Lady of Guadalupe. Funding for the two-hundred-bed clinic came from her personal finances and contributions from her New Jersey supporters. Edwards returned to Washington, DC, where she eventually joined Project Head Start. In 1964, President Lyndon B. Johnson recognized her humanitarian work and nominated her for the Presidential Medal of Freedom.

SCAN TO READ ABOUT DR. EDWARDS CONTRIBUTIONS TO JERSEY CITY

DR. HELEN DICKENS

1909 - 2001

Inspired by the achievements of other African American women who had gone before her, Dr. Helen Dickens benefited from the practical advice and support of such mentors. Dr. Elizabeth Hill, the first African American physician to graduate from the University of Illinois, helped her to register for medical school. Dickens earned her M.D. degree at the same institution in 1934, the only African-American woman in her class. The daughter of a former slave, she would sit at the front of the class in medical school so that she would not be bothered by the racist comments and gestures made by her classmates.

In 1950, Dickens was the first African American woman admitted to the American College of Surgeons. By 1969, she was associate dean in the Office for Minority Affairs at the University of Pennsylvania, and within five years had increased minority enrollment from three students to sixty-four.

SCAN TO READ DR. DICKENS BIO AT THE NIH'S CHANGING THE FACE OF MEDICINE

DR. GERALDINE PITTMAN WOODS

1921 - 1999

Dr. Geraldine Woods was known for her lifelong dedication in using science to contribute to community service, and her establishment of programs that give opportunities to people of color in STEM fields.

After graduating from Howard University in 1942, Woods attended a Radcliffe College and Harvard University partnership program, ultimately earning a Master of Science in 1943 and a Ph.D. in neuroembryology in 1945.

After earning her doctorate, Woods became an instructor at Howard University. In, 1963, Woods began a four-year term on the Personnel Board of the California Department of Employment and in 1964, she became a member of both the National Institute of General Medical Sciences (NIGM) and the National Institute of Health (NIH); that same year, she became the first African American woman to be appointed to the National Advisory General Medical Services Council which focused on improving science and research education for people of color.

Woods' advocacy work brought her to the attention of First Lady Johnson who in 1965 invited her to the White House to help launch the Head Start Program. This nationwide program worked to increase educational opportunity for poor children. In 1968 President Lyndon B. Johnson appointed Woods Chairman of the Defense Advisory Committee on Women in the Services in 1968.

Woods remained incredibly active in many public and private organizations that assisted people of color. She contacted senators in her time at the NIH to improve research facilities and science curriculum at HBCUs, was vice chair of the Community Relations Conference of Southern California from 1968 to 1972 and initiated both the Minority Access to Research Careers Program and the Minority Biomedical Research Support Programs. These are national programs that aided HCBUs in their development of scientific curricula.

SCAN TO READ DR. WOODS' BIO IN THE LA TIMES

DR. EDITH IRBY JONES

1927 - 2019

Dr. Edith Irby Jones was an American physician who was the first African American to be accepted as a non-segregated student at the University of Arkansas Medical School and the first black student to attend racially mixed classes in the American South. She was the first African American to graduate from a southern medical school, first black intern in the state of Arkansas, and later first black intern at Baylor College of Medicine.

After winning a scholarship to Knoxville College in Knoxville, Tennessee, she studied chemistry, biology and physics. One of her teachers had helped her attain the scholarship, members of the local African-American community collected change, and the black press ran a campaign to raise funds that they donated to her for her tuition and living expenses. She graduated with her BS from Knoxville College in 1948 and completed a graduate course at Northwestern University in to prepare for medical school. That same year, she was admitted to the University of Arkansas Medical School, as part of a racially mixed class, and made headlines across the US. She was the first African American to be accepted in any school in the Southern US, and the news was carried in publications such as Time and The Washington Post. Although admitted to the school, Jones had to deal with racial discrimination, such as being forced to use separate facilities from whites for housing and dining.

Upon her graduation, Jones returned to Hot Springs, AR and practiced medicine there for six years. When tension over the Little RockNine polarized Arkansas, and newspapers began to spotlight her again, in 1959 she and her family moved to Houston, Texas. She was accepted as the first black woman intern at the Baylor College of Medicine. Because the hospital staff was segregated and there were limited patient rosters in Texas, she completed her last three months of residency at Freedman's Hospital in Washington, D.C.

In 1964, Jones was elected to serve as second vice president of the National Medical Association (NMA).[In 1975, she became the first woman to chair the Council on Scientific Assembly for the NMA; a decade later, she was elected as the first woman president of the organization. She was a founding member of the Association of Black Cardiologists.

SCAN TO WATCH THIS VIDEO ABOUT DR. JONES FROM THE ARKANSAS HALL OF FAME

YVONNE Y. CLARK

1929-2019

Yvonne Y. Clark was a pioneer for African-American and women engineers. She was the first woman to get a Bachelor of Science degree in mechanical engineering at Howard University. A year following her college graduation from Howard University in 1951, Y.Y. – as she was known professionally – integrated the Society of Women Engineers. She served on its executive committee and was elected to its College of Fellows in 1984. Clark received SWE's Distinguished Engineering Educator Award in 1998.

Clark was also the first woman to earn a master's degree in Engineering Management from Vanderbilt University, and the first woman to serve as a faculty member in the College of Engineering and Technology at Tennessee State University, afterward becoming a professor emeritus.

Her professional engineering career included positions at Frankford Arsenal, RCA, Ford, Westinghouse and NASA.

SCAN TO READ MORE ABOUT MS. CLARK FROM VANDERBILT UNIVERSITY.

DR. ROSELYN PAYNE EPPS

1930- 2014

Dr. Roselyn Epps led a life of firsts. She was...

- the first African American local president of the American Medical Women's Association.
- the first African American and first woman to become president of the Washington, D.C., chapter of the American Academy of Pediatrics.
- the first African American elected national president of the American Medical Women's Association.
- the first African American woman president of the Medical Society of the District of Columbia.

Born in Little Rock, AR, Epps enrolled at Howard University in Washington, D.C. She graduated with a B.S. in 1951, and obtained an M.S., also from Howard, in 1955. Upon receiving her M.S., Epps became a rotating intern with the United States Public Health Service at Freedmen's Hospital in Washington. In 1956, she began a pediatric residency with the hospital, and two years later became its chief resident.

In 1961, she became a medical officer with the District of Columbia Department of Health, and in 1973 earned an M.Ph. from Johns Hopkins University in Baltimore. She continued on with the District of Columbia Department of Health, and in 1980 was appointed the first acting commissioner of health of the District of Columbia.

That year also saw her become a professor of pediatrics and children's health at Howard, and a year later, she received an M.A. from American University in Washington, D.C. She would go on to become the chief of the Child Development Division and director of the Child Development Center at Howard as well as to work for the National Cancer Institute in Bethesda, Maryland.

SCAN TO READ MORE ABOUT DR. EPPS AT HOWARD UNIVERSITY

DR. GLADYS WEST

1930- PRESENT

West received a full scholarship to Virginia State College, earning a degree in mathematics in 1952. She later returned for a master's degree in the subject, graduating in 1955—after spending time teaching math in racially segregated Virginia schools and after applying for a series of jobs in Virginia's segregated state government that were instead awarded to white men.

In 1956, West was hired as a mathematician by the U.S. Naval Proving Ground, a weapons laboratory in Dahlgren, VA, as only their fourth Black employee. At Dahlgren, West was admired for her ability to solve complex mathematical equations by hand. She eventually transitioned from solving those equations herself to programming computers to do it for her. One of her first major projects was work on the Naval Ordinance Research Calculator (NORC), an award-winning program designed to determine the movements of Pluto in relation to Neptune. In 1978, West was named project manager of Seasat, an experimental U.S. ocean surveillance satellite designed to provide data on a wide array of oceanographic conditions and features. . It was the first project to demonstrate that satellites could be used to observe useful oceanographic data.

Out of West's work on Seasat came GEOSAT, a satellite programmed to create computer models of Earth's surface. By teaching a computer to account for gravity, tides, and other forces that act on Earth's surface, West and her team created a program that could precisely calculate the orbits of satellite, which made it possible to determine a model for the exact shape of Earth, called a geoid. It is this model, and later updates, that allows the GPS system to make accurate calculations of any place on Earth.

During her career on the naval base, West earned another master's degree in 1973, this time in public administration from the University of Oklahoma. Though she retired from the base in 1998 at age 68, she continued her education: after recovering from a stroke, she received a Ph.D. in public administration and policy affairs from Virginia Polytechnic Institute in 2000 at age 70.

SCAN TO WATCH
"DR. GLADYS WEST: THE HIDDEN FIGURE BEHIND GPS TECHNOLOGY"

DR. GLORIA LONG ANDERSON

1938 - PRESENT

As one of six children, Anderson was expected to assist with farm chores, though her parents never let farm duties get in the way of education. She attended Arkansas A&M and Normal College, where she received her B.S. degree in chemistry and mathematics and graduated at the top of her class in 1958. Anderson went on to earn her M.S. degree in organic chemistry from Atlanta University in 1960 under the tutelage of her mentor, Henry C. McBay. She taught chemistry at South Carolina State College and Morehouse College between 1961 and 1964. Anderson then went on to earn her Ph.D. degree in physical organic chemistry from the University of Chicago in 1968.

Upon earning her Ph.D. degree, Anderson joined the faculty of Morris Brown College in Atlanta as an associate professor and chair of the chemistry department. In 1973, She was promoted to an endowed chair position and named the Fuller E. Calloway professor of chemistry, earning the illustrious title again in '90, '93, '99, and '07. Beginning in 1981, Anderson spent two summers at Lockheed Georgia Corporation in Marietta, Georgia as both a research fellow and research consultant. During the summer of 1984, she served as a faculty research fellow at the Air Force Rocket Propulsion Laboratory at Edwards Air Force Base in California. From 1984 to 1989, Anderson was promoted to dean of academic affairs at Morris Brown College. She served as interim president from 1992 to 1993 and again in 1998, and from 1995 to 1997, Anderson was the dean of science and technology at Morris Brown College. Since 2007, Anderson has been serving as a professor of chemistry as well as vice president for academic affairs. Throughout her various academic and administrative positions, Anderson kept up her research in organic chemistry, particularly the chemistry of Fluorine-19. Her studies of chemical structure have also found use in further work on anti-viral drugs.

SCAN TO SEE A VIDEO ABOUT DR. ANDERSON
FROM EVERYDAY BLACK HISTORY

DR. PATRICIA BATH

1942 - 2019

Patricia E. Bath, ophthalmologist, laser and creative research scientist, and supporter of visual deficiency counteractive action, treatment, and cure. Her achievements incorporate the innovation of a new gadget and procedure for cataract surgery procedure known as Laserphaco, the formation of another discipline known as “community ophthalmology.” She was the first woman member of the Jules Stein Eye Institute, the first woman to lead a post-graduate training program in ophthalmology and the first woman elected to the honorary staff of the UCLA Medical Center. Dr. Bath was the first African American to serve as a resident in ophthalmology at New York Uiveristy and the first African American woman to serve on staff as a surgeon at the UCLA Medical Center. From 1983 to 1986, Dr. Bath was the first woman chair and first female program director of a postgraduate training program in the United States.

Dr. Bath graduated from Hunter College in New York City with her B.S. degree in chemistry in 1964. She then attended Howard University Medical School. Bath graduated with honors in 1968 with her M.D. degree and won the Edwin J. Watson Prize for Outstanding Student in Ophthalmology and later accepted an internship at Harlem Hospital Center shortly afterward. At the Harlem Hospital Center, Dr. Bath focused on finding treatments for blindness and visual impairment. In 1969, she and several other doctors performed the hospital’s first eye surgery. Dr. Bath used her personal experience as a medical professional to publish a paper demonstrating higher rates of blindness among African Americans. Her observations led her to develop a new field of study known as “community ophthalmology;” it was based on her recognition that blindness was more common among under-served populations both in the United States and around the world.

In 1981, Dr. Bath conceived of her invention, the Laserphaco Probe, and published numerous papers about her research and inventions. Dr. Bath received a patent for her invention on May 17, 1988, and became the first African American female doctor to receive a patent for a medical invention. She continued to work at UCLA and Drew University during the development of her laser cataract removal instrument, and, in 1983, she developed and chaired an ophthalmology residency training program.

SCAN TO READ ABOUT DR. BATH
IN THE INVENTORS HALL OF FAME.

DR. DONNA CHRISTIAN-CHRISTENSEN

1945 - PRESENT

Dr. Donna M. Christian-Christensen was the first woman physician in the history of the U.S. Congress. She served nine terms in the U.S. congressional representative (non-voting) for the United States Virgin Islands. As chair of the Congressional Black Caucus's (CBC) Health Braintrust since 1998, Congresswoman Christian-Christensen led the effort to oversee and advocated on minority health issues on the national and international level. She remains at the forefront of bringing minority health concerns to the attention of national policymakers.

While she had always wanted some kind of career helping people, and had at one time been interested in pursuing nursing, it was not until her sophomore year of college that a favor for a friend awakened her to the possibility of becoming a physician. "One day, I got a United Negro College Fund booklet about encouraging young minorities to go into medicine. And I really picked it up for a friend of mine, but I read it, and I changed my mind overnight. I decided to go to medical school." She went on to train at the George Washington University School of Medicine, where she earned her degree in 1970.

In her sophomore year of medical school, she made a decision that would change her life. In the summer of 1968, when she "should have been studying for her boards," she volunteered to provide medical services for a political event in Washington, DC, called the Poor People's Campaign. "It was kind of a tough trek for many people to come from all over the country," Dr. Christian-Christensen remembered, "and it poured. The tents were set up in mud, and that's where we worked for about two weeks." She spent an entire day with a young woman who had come from the South without any family, and she had a sexually transmitted disease. Since she was the only woman physician in the van at the time, she was assigned to take care of the young patient and complete her diagnosis and treatment. She realized how important her work could be in the lives of young people, and went home with an interest in adolescent medicine. She chose to study family practice, and to rotate through psychiatry, pediatrics, and obstetrics-gynecology. "I thought that was a great preparation. And of course when I got home, the need was for a family physician. And that's what I became."

SCAN TO CHECK OUT
DR. CHRISTIAN-CHRISTENSEN'S TWITTER FEED

DR. SHIRLEY ANN JACKSON

1946 - PRESENT

Dr. Shirley Ann Jackson is an American physicist and was the 18th president of Rensselaer Polytechnic Institute. She is the first African-American woman to have earned a doctorate at the Massachusetts Institute of Technology. She is also the second African-American woman in the United States to earn a doctorate in physics. Committed to promoting social justice, she organized MIT's Black Student Union and worked to increase the number of Black students entering MIT. After only one year, the number entering rose from 2 to 57.

As the first Black American woman to serve on the United States Nuclear Regulatory Commission (NRC), and the first woman and Black American to lead the NRC, Jackson reaffirmed that agency's commitment to public health and safety. She enhanced its regulatory effectiveness and initiated a bottom-up strategic assessment of all NRC activities.

SCAN TO SEE DR. JACKSON TALK ABOUT HER WORK AT THE NUCLEAR REGULATORY COMMISSION

DR. PATRICIA COWINGS

1948-PRESENT

Dr. Patricia S. Cowings is an aerospace psychophysiologist. She was the first American woman to be trained as a scientist astronaut by NASA; though she was an alternate for a space flight in 1979, she did not travel to space. She is most known for her studies in the physiology of astronauts in outer space, as well as helping find cures for astronaut's motion sickness. She currently develops non-medical methods that help astronauts adapt faster to space-induced physiological changes at NASA Ames Research Center.

Her research resulted in the NASA patented Autogenic Feedback Training Exercise (AFTE). The AFTE method and system is used to train people to monitor and voluntarily control a variety of their physiological responses to reduce symptoms of motion sickness and environmental stress. Previously, Cowings excelled as a researcher at NASA, a space crew trainer, a professor in psychiatry at UCLA and a professor in medical and clinical psychology at Uniformed Services Industry.

Cowings continued to apply her space and aviation experience as the principal investigator of the Psychophysiological Research Laboratory at NASA Ames Research Center, following the success of her key experiments at NASA.

After working on Spacelab Mission Development-3, a simulated space shuttle mission, her experiment to study how astronauts adapt to the weightlessness of space was selected to fly on the STS-51B and STS-51C shuttle flights in 1985. This triumph led dr. cowlings to design an ambulatory instrument that made it easier to monitor the astronauts' physiological responses in space.

SCAN TO WATCH DR. COWINGS DISCUSS NASA'S
AUTOGENIC FEEDBACK TRAINING EXERCISE AND TELEMEDICINE

DR. ALEXA CANADY

1950 - PRESENT

Alexa Canady, MD, was a pioneer of her time, both for women physicians and African Americans, when she became the first African-American woman neurosurgeon in the United States in 1981. “The greatest challenge I faced in becoming a neurosurgeon was believing it was possible,” she is famously quoted.

She graduated from the University of Michigan in 1971 with a degree in zoology, and it was during her undergraduate studies that she attended a summer program in genetics for minority students and fell in love with medicine. Dr. Canady went on to graduate cum laude from the College of Medicine at the University of Michigan. She initially wanted to be an internist but became intrigued by neurosurgery during her first two years of medical school. It was a career path that some advisers discouraged her from pursuing, and she encountered difficulties in obtaining an internship. But she persisted. Eventually, Dr. Canady was accepted as a surgical intern at Yale-New Haven Hospital in 1975, breaking another barrier as the first woman and first African American to be enrolled in the program.

In 1976, Dr. Canady began her residency in neurosurgery at the University of Minnesota, which she competed in 1981. Following a fellowship in pediatric neurosurgery at Children’s Hospital of Philadelphia, Dr. Canady returned to her home state of Michigan and joined the Neurosurgery Department at Detroit’s Henry Ford Hospital. Later, at age 36, she became the Chief of Neurosurgery at Children’s Hospital of Michigan, where she cared for young patients facing life-threatening illnesses, gunshot wounds, head trauma, hydrocephaly, brain tumors and spine abnormalities.

After years as a successful neurosurgeon, Dr. Canady retired from her position in 2001 and relocated to Florida with her husband. Her retirement was short-lived, however, when she learned there were no pediatric neurosurgeons in her immediate area and began to practice part-time at Pensacola’s Sacred Heart Hospital. Dr. Canady officially retired from practicing medicine a second time in 2012. She continues to be an advocate for encouraging young women to pursue careers in medicine and neurosurgery.

SCAN TO WATCH DR. CANADY STRESS
THE NEED TO ATTRACT MORE YOUNG NEUROSURGEONS

DR. JOAN Y. REEDE

1953 - PRESENT

Appointed as the first dean for diversity and community partnership in January 2002, Joan Y. Reede is responsible for the development and management of a comprehensive program that provides leadership, guidance, and support to promote the increased recruitment, retention, and advancement of underrepresented minority faculty at Harvard Medical School. This charge includes oversight of all diversity activities at HMS as they relate to faculty, trainees, students, and staff.

In 1990, Dr. Reede founded the HMS Minority Faculty Development Program and also currently serves as faculty director of the Community Outreach programs. In 2008, she became the director of the Harvard Catalyst Program for Faculty Development and Diversity. In addition, Dr. Reede holds appointments of professor of medicine at HMS, Professor of Society, Human Development, and Health at the Harvard T. H. Chan School of Public Health, and Assistant in Health Policy at Massachusetts General Hospital. In 1989, prior to coming to HMS, Dr. Reede served as the medical director of a Boston community health center, and the Commonwealth of Massachusetts Department of Youth Services. She has also worked as a pediatrician in community and academic health centers, juvenile prisons, and public schools.

The impact of Dr. Reede's work is reflected in the numerous programs she has created to benefit minority students, residents, scientists, and physicians. Dr. Reede created and developed more than 20 programs at HMS that aim to address pipeline and leadership issues for minorities and women who are interested in careers in medicine, academic and scientific research, and the healthcare professions. Supported by a dedicated staff, she has developed mentoring programs for underrepresented minority students from the middle school through the graduate and medical school levels. She has also designed a training program for middle and high school teachers, developed science curricula for public schools, implemented research and exchange clerkship programs at HMS, and designed and implemented innovative fellowships in minority health policy for physicians, dentists, and doctoral-level mental health professionals.

SCAN TO WATCH DR. REEDE TALK ABOUT WHY SHE BECAME A PHYSICIAN, HER SECRET TO LAUNCHING SUCCESSFUL INITIATIVES, AND THE CAREER SHE MIGHT HAVE PURSUED, WITH SHERRI ANN CHARLESTON, HARVARD'S CHIEF DIVERSITY AND INCLUSION OFFICER.

DR. HELENE D. GAYLE

1955 - PRESENT

Since 1987, when Dr. Helene Gayle completed her residency training in preventive medicine at the CDC, she has devoted her career to providing scientific, management, and policy leadership in research, control, and prevention related to HIV/AIDS, as well as other sexually transmitted diseases and tuberculosis.

From 1995 to 2001 she served as director of the CDC's National Center for HIV, STD, and TB Prevention (NCHSTP), and has collaborated with public and private partners at the community, state, national, and international levels to implement well-integrated multidisciplinary programs that prevent disease and save lives. During her tenure, the NCHSTP expanded community-based HIV prevention activities, especially in minority and underserved communities. She also helped to launch a new global HIV/AIDS initiative and efforts to eliminate syphilis and tuberculosis.

In 2001, Gayle was named director of the Bill and Melinda Gates Foundation's HIV/AIDS and Tuberculosis program, where she is responsible for research, policy, public awareness, and program issues on HIV/AIDS, other sexually transmitted diseases, and tuberculosis in poorer countries. She is currently the president of Spelman College and formerly served as CEO of the Chicago Community Trust, one of the nation's leading community foundations.

Gayle has been honored with numerous awards, including Columbia University's Barnard College Women of Achievement Award in 2001 and Woman of the Year Award in 1999 from the 100 Black Men of America group. She has written and edited numerous book chapters and journal articles, many focusing on HIV/AIDS infection among women, children, and adolescents in developing countries. She is a member of many professional organizations, including the Council on Foreign Relations and the American Association for the Advancement of Science.

SCAN TO WATCH CONVERSATION WITH DR. GAYLE AND DR. ASHISH K. JHA, FORMERLY DEAN OF THE BROWN UNIVERSITY SCHOOL OF PUBLIC HEALTH

DR. CAMARA PHYLLIS JONES

1955 - PRESENT

Dr. Camara Phyllis Jones is a family physician and epidemiologist whose work focuses on naming, measuring, and addressing the impacts of racism on the health and well-being of the nation. She seeks to broaden the national health debate to include not only universal access to high quality health care, but also attention to the social determinants of health (including poverty) and the social determinants of equity (including racism).

As a methodologist, she has developed new methods for comparing full distributions of data, rather than simply comparing means or proportions, in order to investigate population-level risk factors and propose population-level interventions. As a social epidemiologist, her work on "race"-associated differences in health outcomes goes beyond simply documenting those differences to vigorously investigating the structural causes of the differences. As a teacher, her allegories on "race" and racism illuminate topics that are otherwise difficult for many Americans to understand or discuss. She aims through her work to catalyze a national conversation on racism that will mobilize and engage all Americans in a National Campaign Against Racism.

She is a past president of the American Public Health Association, a senior fellow at the Morehouse School of Medicine, and an adjunct professor at the Rollins School of Public Health at Emory University. Dr. Jones was an Assistant Professor at the Harvard School of Public Health (1994 to 2000) before being recruited to the Centers for Disease Control and Prevention (2000 to 2014), where she served as a Medical Officer and Research Director on Social Determinants of Health and Equity.

Dr. Jones earned her BA in Molecular Biology from Wellesley College, her MD from the Stanford University School of Medicine, and both her Master of Public Health and her PhD in Epidemiology from the Johns Hopkins School of Hygiene and Public Health.

SCAN TO WATCH WITH DR. JONES DISCUSS "RACISM IS A PUBLIC HEALTH CRISIS: NOW THAT WE SEE, WHAT CAN WE DO?"

DR. PAULA JOHNSON

1959 - PRESENT

Dr. Paula Johnson is a women's health specialist and a pioneer in the treatment and prevention of cardiovascular disease. She conceived of and developed one of the first facilities in the country to focus on heart disease in women.

She majored in biology at Radcliffe College of Harvard University. After graduating in 1980, she was admitted to Harvard Medical School, where she became interested in clinical epidemiology. She took a year off to study at the Harvard School of Public Health and earned both her medical degree and her master's in public health in 1985. While doing her residency at Boston's Brigham and Women's Hospital (BWH), she became fascinated by cardiology and chose it as her specialty. At BWH, Johnson was made chief medical resident in 1990, the first woman to hold that position in the history of the hospital.

Johnson founded and headed the Mary Horrigan Connors Center for Women's Health and Gender Biology and was chief of the Division of Women's Health at Brigham and Women's Hospital in Boston. She also directed the Center for Cardiovascular Disease in Women, which aims to develop new prevention, treatment, and rehabilitation strategies through research as it serves women in all stages of life. One focus of the Center is to reduce the risk of heart disease by educating women about lifestyle choices—including smoking, poor nutrition, and lack of exercise—that endanger the heart and blood vessels. Because African-American women are 50 percent more likely to die of cardiovascular disease than white women, many of the Center's efforts are directed to empowering black women in matters of their health and to examining relationships between race and disease.

In 2016, Johnson became the 14th president at Wellesley College.

SCAN TO WATCH DR. JOHNSON'S REMARKS WHEN SHE BECOME WELLESLEY COLLEGE PRESIDENT

DR. PAULA HAMMOND

1963 - PRESENT

Paula T. Hammond is an Institute Professor and Head of MIT's Department of Chemical Engineering, from which she holds both undergraduate and doctoral degrees. She is a chemical engineer who designs nanoscale materials that can deliver drugs to specific parts of the body. Her work includes designing tiny particles that target chemotherapy drugs directly to tumor cells, and nanostructured dressings that rapidly stop bleeding to save the lives of soldiers wounded on the battlefield.

She is also a founding member of the MIT Institute for Soldier Nanotechnology. Among numerous awards, Hammond has received the American Institute of Chemical Engineers Margaret H. Rousseau Pioneer Award for Lifetime Achievement by a Woman Chemical Engineer, the Materials Research Society David Turnbull Lectureship, the ETH Zurich Chemical Engineering Medal, and the American Chemical Society Award in Applied Polymer Science. She is a member of three National Academies—Sciences, Engineering, and Medicine—as well as the American Academy of Arts and Sciences. Hammond is a Board Member and co-Founder of LayerBio, Inc., a member of the Scientific Advisory Board of Moderna Therapeutics, Inc., the Scientific Advisory Board of Camden Partners LLC, a member of the Board of Alector, Inc. and member of the Board of Advanced Chemotherapy Technologies. She also serves on non-profit Boards including the Burroughs-Wellcome Fund and The MIT Engine.

SCAN TO WATCH DR. HAMMOND DISCUSS STICKY PARTICLES
DESIGNED FOR BETTER MEDICINE AT THE NATIONAL ACADEMY OF SCIENCES

DR. AZZA IDRIS

1969 - PRESENT

Dr. Azza Idris is a physician scientist trained as an immunologist and pediatric infectious disease specialist with interests in discovery science and translational research. She hold a B.Sc, in Biology from MIT as well as an M.D., and Ph.D, from Mount Sinai School of Medicine. She completed Pediatric Residency Training at Emory University in Atlanta and Subspeciality Training in Pediatric Infectious Diseases at Children's National Medical Center in Washington, D.C.

In addition to her work at the Ragon Institute of MGH, MIT, and Harvard, Dr. Idris is as part of the NIH's Immunology Laboratory, working in the Cellular Immunology Section's Seder Research Group.. The Cellular Immunology Section focuses on Coronavirus, Malaria, and Tuberculosis (TB), and as the head of the Malaria Unit, Dr. Idris leads efforts on discovery, development and evaluation of antibodies and vaccines against malaria. She also supports the advancement of candidate therapeutics through preclinical trials.

She is a recipient of a 2022 National Institute of Allergy and Infectious Diseases (NIAID) Award, in recognition of the discovery of L9, a highly potent human monoclonal antibody, for prevention of Plasmodium falciparum malaria infection, as part of the L9 Malaria Monoclonal Antibody Scientific Discovery Group.

SCAN TO FOLLOW DR. IDRIS ON TWITTER

DR. BISOLA OJIKUTU

1973 - PRESENT

Dr. Bisola Ojikutu is a nationally recognized physician leader, health equity researcher, community advocate and expert in the prevention, care, and treatment of infectious diseases. Dr. Ojikutu was appointed Executive Director of the Boston Public Health Commission (BPHC) in September 2021.

As Executive Director of the BPHC, the City's health department, Dr. Ojikutu manages a budget of $162M and leads 1,200 employees to protect, preserve, and promote the health and well-being of all Boston residents, particularly the most vulnerable. Dr. Ojikutu is a key advisor to Boston's Mayor on health issues and builds innovative partnerships across city departments and within Boston's communities to positively impact the health of all city residents. Among other public health priorities, she is committed to addressing racism as a public health crisis and advancing health equity.

Dr. Ojikutu is an Associate Professor of Medicine at Harvard Medical School and a faculty member within the Division of Global Health Equity at Brigham and Women's Hospital. She also holds appointments within the Infectious Disease Division at Massachusetts General Hospitals and is an adjunct faculty member at The Fenway Institute. Most recently, Dr. Ojikutu served as Director of the Community Engaged Research Program and the Associate Director of the Bio-Behavioral and Community Science Core for the Harvard Center for AIDS Research. In 2018, she was appointed co-Chair of the Getting to Zero Statewide Campaign Comprehensive Care Committee to reduce HIV infections in Massachusetts. In recognition of her efforts, she was named a Hero in Action by AIDS Action Committee of Massachusetts and a Community Hero by Action for Boston Community Development.

Dr. Ojikutu graduated from Johns Hopkins School of Medicine and also holds Master's in Public Health in Health Policy and Management from the Harvard School of Public Health.

SCAN TO FOLLOW DR. OJIKUTU ON TWITTER

DR. ALETHA MAYBANK

1974 - PRESENT

Aletha Maybank, MD, MPH currently serves as the chief health equity officer and senior vice president for the American Medical Association (AMA) where she focuses on embedding health equity across all the work of the AMA and leading its Center for Health Equity.

She joined the AMA in April 2019 as the association's inaugural chief health equity officer to launch AMA's Center for Health Equity. Prior to this, Dr. Maybank served as the founding deputy commissioner for the Center for Health Equity at the NYC Department of Health and Mental Hygiene. Aimed at strengthening equity efforts and transforming organizational culture, the Center became a model of success recognized by NYC leadership, the Centers for Disease Control and Prevention and the World Health Organization. She was instrumental in infusing equity at the neighborhood level and advancing the department's place-based approach to addressing health inequities. She also set precedence with groundbreaking work at the Office of Minority Health in the Suffolk County Department of Health Services while serving as the founding director.

Dr. Maybank has taught medical and public health students on topics related to health inequities, public health leadership and management, physician advocacy, and community organizing in health. In 2012, along with a group of Black women physician leaders, Dr. Maybank co-founded "We Are Doc McStuffins", a movement inspired by the Disney Junior character Doc McStuffins serving to shine a light on the critical importance of diversity in medicine.

Dr. Maybank holds a BA from Johns Hopkins University, an MD from Temple University School of Medicine, and an MPH from Columbia University Mailman School of Public Health. She is a pediatrician and preventive medicine/public health physician.

SCAN TO WATCH DR. MAYBANK DISCUSS THE AMA'S WORK TO ADVANCE HEALTH EQUITY

DR MARCELLA NUNEZ-SMITH

1981 - PRESENT

Dr. Nunez-Smith is the C.N.H Long Professor of Internal Medicine, Public Health, and Management; Inaugural Associate Dean for Health Equity Research; Founding Director of the Equity Research and Innovation Center (ERIC); Director of the Center for Research Engagement (CRE); Associate Cancer Center Director for Community Outreach and Engagement at Yale Cancer Center; Chief Health Equity Officer at Smilow Cancer Hospital; Deputy Director for Health Equity Research and Workforce Development at the Yale Center for Clinical Investigation; Core Faculty in the National Clinician Scholars Program; Research Faculty in the Global Health Leadership Initiative; Director of the Pozen-Commonwealth Fund Fellowship in Health Equity Leadership; and Co-Director of the Doris Duke Clinical Research Fellowship.

Dr. Nunez-Smith's research focuses on promoting health and healthcare equity for structurally marginalized populations with an emphasis on centering community engagement, supporting healthcare workforce diversity and development, developing patient reported measurements of healthcare quality, and identifying regional strategies to reduce the global burden of non-communicable diseases. Dr. Nunez-Smith has extensive expertise in examining the effects of social and structural determinants of health, systemic influences contributing to health disparities, health equity improvement, and community-academic partnered scholarship. In addition to this extensive experience in primary data collection, management, and analysis, ERIC has institutional expertise in qualitative and mixed methods, population health, and medical informatics.

Most recently, as the COVID-19 pandemic has shed national attention on the health and healthcare disparities of marginalized populations, she was called upon to serve on the Governor's ReOpen CT Advisory Group and to chair its Community Committee. She served as an Advisor to the Biden-Harris campaign, and subsequently named co-chair of the Biden-Harris Transition COVID-19 Advisory Board and will serve as chair of the COVID-19 Health Equity Task Force in the administration. She also received NIH funding to leverage ECHORN to improve the COVID-19 testing cascade in Puerto Rico and the US Virgin Islands.

SCAN TO WATCH DR. NUNEZ-SMITH
DISCUSS HOW TO END A PANDEMIC

DR. CANDACE BRIDGE

1982 - PRESENT

Dr. Candice Bridge is a chemist and Associate Professor of Chemistry and Forensic Science at the University of Central Florida. Her research considers the development of mass spectroscopy for forensic analysis, including the characterization of lubricant from rape victims and residue from gunshots, as well as the identification of drugs in urine samples.

In 2016, Bridge was awarded a $324,000 research grant from the National Institute of Justice to study rape investigation methods in collaboration with the Federal Bureau of Investigation. To assist with rape investigations, Bridge developed the Sexual Lubricant Database, a compilation of data on the identifying characteristics and chemical composition of sexual lubricants. This database allows forensic scientists to analyze the ingredients found in sexual lubricants to identify their molecular signatures specific to certain brands and formulations.

Bridge is one of the first people to earn a forensic Ph.D. in the United States and is also the first Black woman to teach chemistry at both Howard University and the University of Central Florida.

SCAN TO WATCH DR. BRIDGE DISCUSS
HER JOURNEY AS A BLACK CHEMIST.

DR. KIZZMEKIA S. CORBETT

1986 - PRESENT

Dr. Kizzmekia Shanta Corbett is an American viral immunologist. She is an Assistant Professor of Immunology and Infectious Diseases at Harvard T.H. Chan School of Public Health and the Shutzer Assistant Professor at the Harvard Radcliffe Institute since June 2021.

Dr. Corbett uses her viral immunology expertise to propel novel vaccine development for pandemic preparedness, including mRNA-1273, a leading vaccine against SARS-CoV-2. The vaccine concept incorporated in mRNA-1273 was designed by Dr. Corbett's NIH team from viral sequence and rapidly deployed to industry partner, Moderna, Inc., for Phase 1 clinical trial, which unprecedently began only 66 days from viral sequence release. mRNA-1273 was shown to be 94.1% effective in Phase 3 trial and is authorized for use in multiple countries. Alongside mRNA-1273, Dr. Corbett boasts a patent portfolio which also includes universal coronavirus and influenza vaccine concepts and novel therapeutic antibodies. In all, she has over 15 years of experience studying dengue virus, respiratory syncytial virus, influenza virus, and coronaviruses, garnering several prestigious awards, such as the Benjamin Franklin Next Gen Award and the Salzman Memorial Award in Virology. Combining her research goals with her knack for mentorship, Dr. Corbett invests much of her time in underserved communities as an advocator of STEM education and vaccine awareness.

She joined Harvard following six years at the Vaccine Research Center (VRC) at the National Institute of Allergy and Infectious Diseases, National Institutes of Health (NIAID NIH) based in Bethesda, Maryland. She earned a PhD in microbiology and immunology from the University of North Carolina at Chapel Hill (UNC-Chapel Hill) in 2014.

Appointed to the VRC in 2014, Corbett was a postdoctoral scientist of the VRC's COVID-19 Team, with research efforts aimed at COVID-19 vaccines.In February 2021, Corbett was highlighted in the Time's "Time100 Next" list under the category of Innovators, with a profile written by Anthony Fauci.

SCAN TO WATCH DR. CORBETT DISCUSS COVID-19 VACCINE DEVELOPMENT & BUST VACCINE MYTHS

DR. LOZA F. TADESSE

1992 - PRESENT

Dr. Tadesse is an Assistant Professor at MIT MechE and an associate member at the Ragon Institute of MGH, MIT, and Harvard. Her lab develops next generation disease diagnostic modalities for extreme environments such as resource limited settings, space exploration and military field sites.

As a medical student in Ethiopia, she experienced firsthand the gravity of challenges in resource limited clinical settings. This instilled a strong interest in Dr. Tadesse for a career in engineering point-of-care medical devices. Her PhD work at Stanford developed a rapid, all-optical and label-free bacterial diagnostic and antibiotic susceptibility testing system preventing the time-consuming culturing steps in gold standard methods. She combined machine learning and a light scattering approach called Raman spectroscopy to fingerprint bacterial species even in their natural liquid environment. She was a postdoctoral fellow at UC Berkeley in Prof. Laura Waller's lab developing diagnostic optical tools employing computational optics design and machine learning to enable medical grade diagnostics design from simple optical components.

Prior to graduate school, Dr. Tadesse was a researcher at IBM Almaden and Los Alamos National Laboratories. When not in lab, she is heavily involved in teaching and outreach including, chairing the 2022 Gordon Research Seminar (GRS) on Plasmonics and Nanophotonics, and leading Scifro, an educational non-profit running on $350K grants from major partners including the Gates Foundation aiming to inspire African youth to solve local problems using STEM.

SCAN TO READ DR. TADESSE'S FORBES'
"30 UNDER 30 - HEALTHCARE (2022)" LISTING

DR. RAVEN BAXTER

1993 - PRESENT

Dr. Raven the Science Maven is an internationally acclaimed award-winning educator, molecular biologist, public speaker, and rapper. She is renowned for her aptitude to merge science with popular culture and has been honored in Fortune magazine's "40 Under 40 in Health" list for 2021 and Forbes' “30 Under 30” in Science, Ebony Power 100 list, and AfroTech Future 50 List for 2022.

Raven Baxter was born in Buffalo, New York, where she earned her master’s degree in Molecular Biology at Buffalo State College, and Ph.D. in Science Education from the University at Buffalo. She has a passion for teaching others about science through creative outlets such as music, fashion, and comedy. Her mission is to make science accessible to everyone regardless of their background or experience level.

Raven the Science Maven is a well-known public speaker who regularly addresses topics from STEM education and diversity to public health and technology. She is an advocate for science education reform and believes that anyone can learn science with the right tools and support. Dr. Raven has been invited to deliver keynote speeches at various organizations such as Princeton University, National Science Teachers Association, SACNAS, Parent Teacher Association, and RTI International. Furthermore, she has held a TEDx Talk called "You Don't Look Like A Scientist!" where she spoke about self-awareness, music, embracing one's identity, and representation in STEM fields.

Dr. Raven has partnered with a number of companies in order to bring science to the masses. She has worked with Olay, Regeneron, Brooks Running, and many more; to tackle the gender gap in STEM, share about the science of sneakers, or teach high-school students introductory laboratory techniques. Dr. Raven the Science Maven continues to use her platform to promote scientific literacy and make science accessible for everyone. Through her partnerships, she is able to reach a wider audience and share her passion for science with the world.

SCAN TO VISIT DR. RAVEN THE SCIENCE MAVEN'S SITE

ALENA WICKER

2009 - PRESENT

In July 2022, Alena Wicker has become the youngest Black person to be accepted into medical school, at the age of 13. After completing two and a half years of college at Arizona State University and Oakwood University, she is on her way to attending the University of Alabama at Birmingham Heersink School of Medicine — aiming to become a doctor by 18.

“I really want to leave my mark on the world. And lead a group of girls that know what they can do,” Wicker said.

Initially, Wicker had the vision of working for NASA in the near future, following her acceptance into ASU’s engineering program at age 12. Although she initially wanted to pursue engineering, she fell in love with biology after a trip to Jordan with The Brown STEM Girl foundation.

“It actually took one class in engineering, for me to say this is kind of not where I wanted to go,” she said. “I think viral immunology really came from my passion for volunteering and going out there engaging with the world.”

“What I want from healthcare, is to really show these underrepresented communities that we can help that we can find cures for these viruses,” she said.

Alena will attend The University of as part of the school’s Burroughs Wellcome Scholars Early Assurance Program, which partners with several Black schools in Alabama to offer students early acceptance as they plan to enter medical school.

SCAN TO FOLLOW ALENA ON INSTAGRAM