

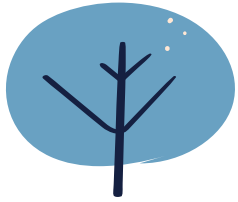


Black History Month at LDEO



Celebrating Black scientists!

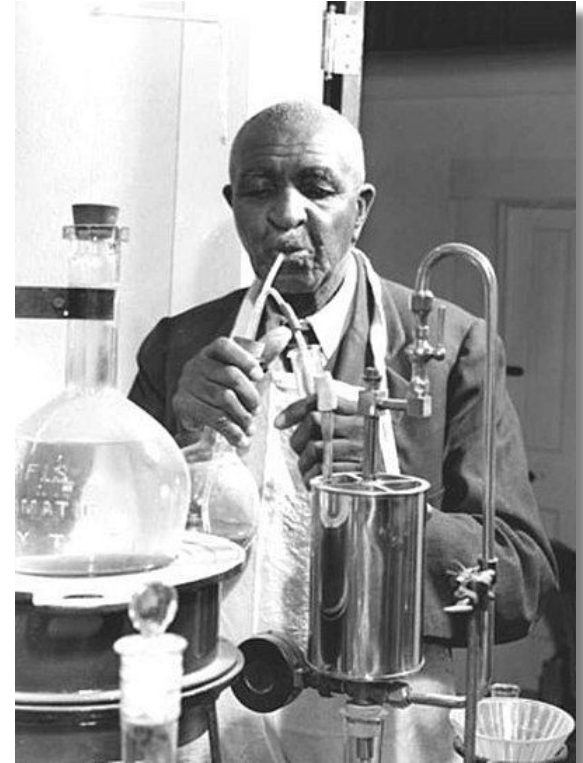




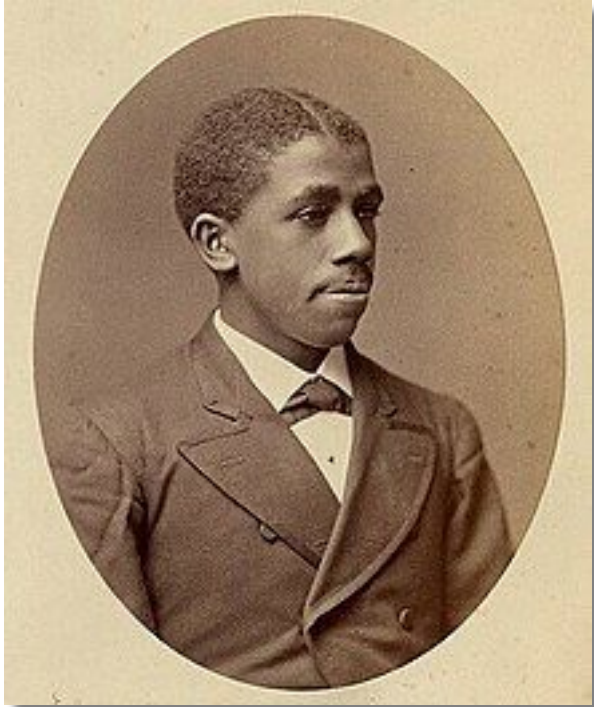
George Washington Carver (1864 - 1943)



- Agricultural scientist, botanist, inventor
- Developed techniques to improve soils after repeated planting
- Promoted alternatives to cotton
- Compiled a list of 105 uses for peanuts



Dr. Edward Bouchet (1852 - 1918)



- Physicist and Educator
- First African-American to receive a Ph.D.
- Among the first 20 Americans to obtain a Ph.D. in Physics





Mae Jemison, M.D.

- Engineer, Physician, NASA Astronaut
- First Black woman to go into space aboard the Endeavour in 1992

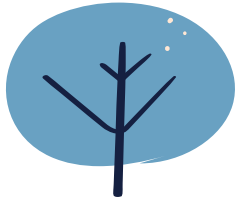


Stephanie D. Wilson



- Aerospace engineer, NASA Astronaut
- Second Black woman to go into space and has spent 42 days in space (more than any other African American) in 2006, 2007, and 2010





Katherine Johnson (1918 - 2020)



- NASA Mathematician
- Her calculations of orbital mechanics were critical in sending the first ships into space
- Portrayed in the film Hidden Figures (2016)



Ernest Everett Just (1883 - 1941)



- Biologist, Science Writer
- His primary legacy is his recognition of the fundamental role of the cell surface in the development of organisms





Dr. Marie Maynard Daly (1921 - 2003)

- Biochemist
- First Black woman to receive a Ph.D. in Chemistry in the US (from Columbia University!)

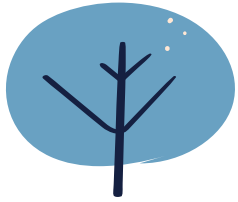


Dr. Percy Lavon Julian (1899 - 1975)



- Research chemist
- Pioneer in the chemical synthesis of medical drugs from plants

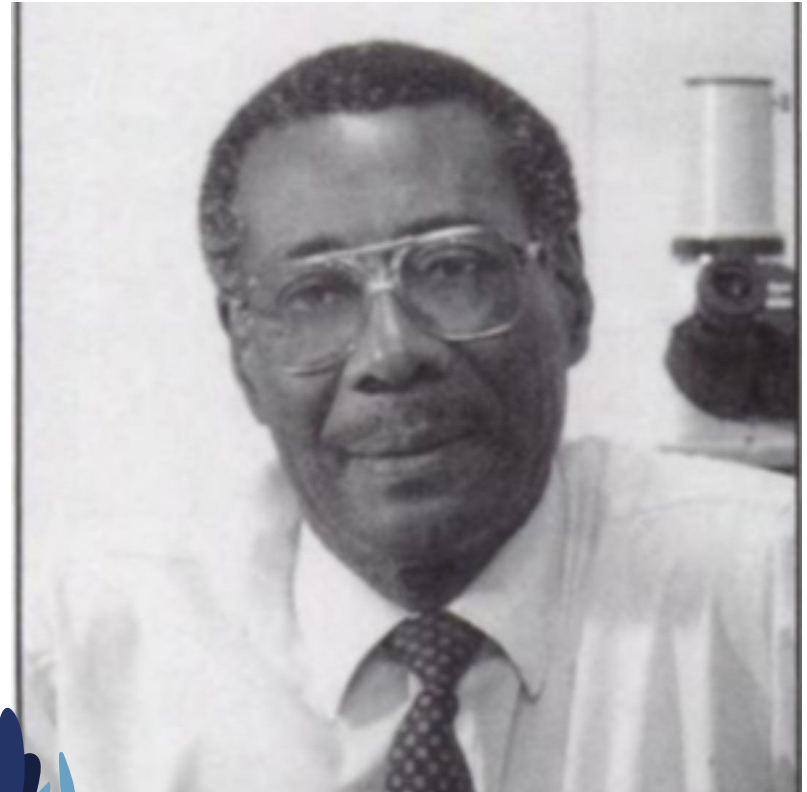




Dr. Mack Gipson (1931 - 1995)



- Geologist
- First African-American male to obtain a Ph.D. in Geology
- Studied deep sedimentary rocks near the central Illinois coal fields



Zelma Maine Jackson



- Exploration Geologist
- Specialized in finding Uranium for mining in the 1970s
- Now cleans up nuclear waste from groundwater





Gladys West

- Mathematician
- Worked on mathematically modelling the shape of the Earth
- Developed Satellite Geodesy Models that were the basis for GPS

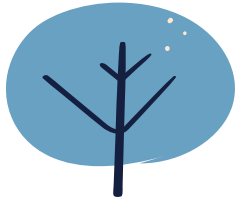


Dr. Patricia Bath (1942 - 2019)



- Ophthalmologist, inventor, humanitarian, academic
- Early pioneer of laser cataract surgery





Annie Easley (1933 - 2011)



- Computer scientist, mathematician, and rocket scientist
- Developed and implemented computer code that analyzed alternative power technologies



Dr. Harold Amos (1918 - 2003)



- First African American Microbiologist and the first to become the department chair of Harvard Medical School.
- Spearheaded research into the use of bacterial RNA to program the synthesis of higher cell proteins





Valerie Thomas

- Scientist and inventor
- Inventor of the Illusion Transmitter that has been used for NASA research.
- Helped develop the image-processing systems for LANDSAT (the first satellite to send images from space).



Dr. George Edward Alcon Jr.



- Physicist and Inventor
- Invented the X-Ray Spectrometer, which we often use here at LDEO - the XRF and LIBS





Dr. Betty Wright Harris

- Chemist and inventor
- Known for her development and invention of the TATB spot test for identifying explosives in the field.
- She successfully patented her invention which has been widely adopted by military and civil institutions



Lloyd Albert Quarterman



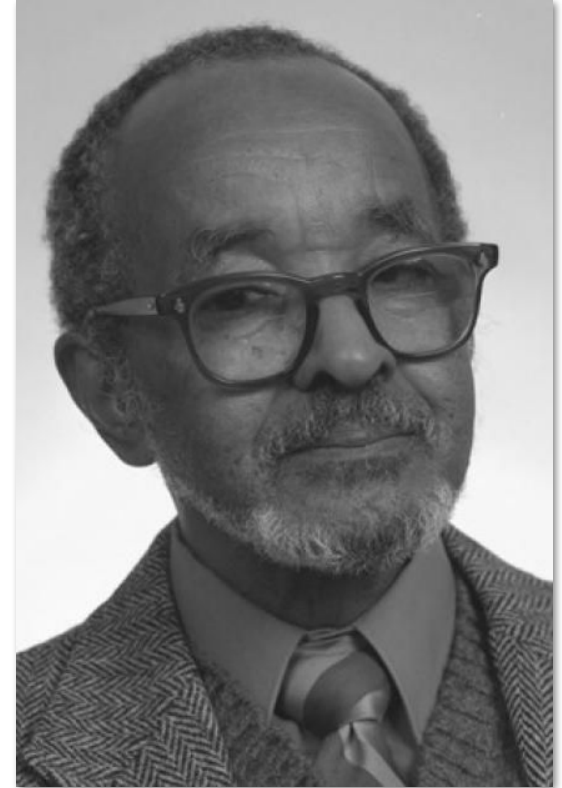
- Chemist
- Key scientist who worked on the Manhattan Project during the Second World War
- Primarily responsible for the design and implementation of a distillation process for purifying hydrogen fluoride





Dr. Emmett W. Chapelle (1925 - 2019)

- Inventor, Biochemist
- Inducted into the National Inventors Hall of Fame for his work on bioluminescence in 2007
- Developed a method of detecting and counting bacteria using an enzymatic bioluminescent assay



Alice Augusta Ball (1892 - 1916)



- Chemist
- Developed the “Ball Method”, the most effective treatment for leprosy during the early 20th century

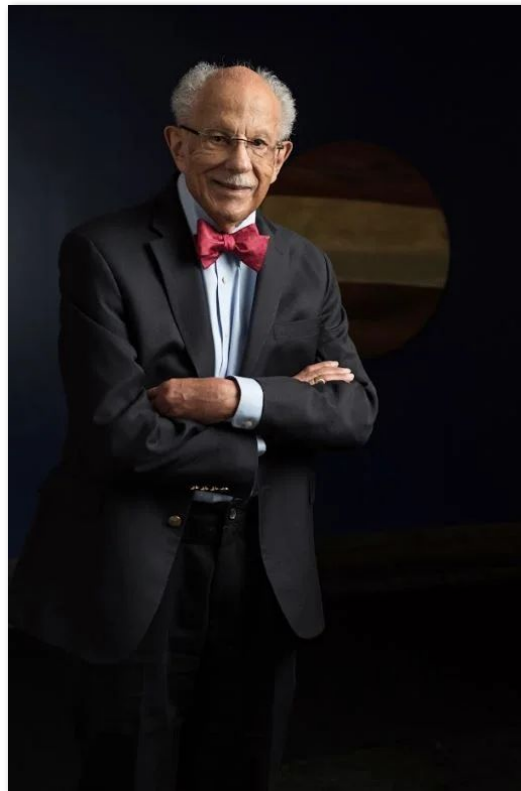




Dr. Warren M. Washington



- Atmospheric Scientist
- Awarded for the development and application of advanced coupled atmospheric-ocean general circulation models (GCMs)
- Awarded National Medal of Science by President Obama in 2010



Joan Murrell Owens (1933 - 2011)



- Marine Biologist specializing in corals
- Described a new genus, *Rhombopsammia*, and three new species of button corals, *R. niphada*, *R. squiresi*, and *Letepsammia franki*.





Benjamin Banneker (1731 - 1806)

- Inventor, Naturalist, Mathematician, Astronomer
- Constructed the first wooden clock
- Recorded observations on emergences of periodical cicadas and on the behavior of honey bees.



Dr. Ayana Johnson



- Marine Biologist, Policy Specialist
- Founder of Ocean Collectiv, a consulting firm for conservation solutions grounded in social justice
- Founder of Urban Ocean Lab, a think tank for coastal cities





Dr. Roger Arliner Young

- Zoologist, Biologist, and Marine Biologist
- First African American woman to receive a doctorate degree in zoology
- In 1924 her first article, "On the excretory apparatus in *Paramecium*" was published in Science, making her the first African American woman to research and professionally publish in this field.

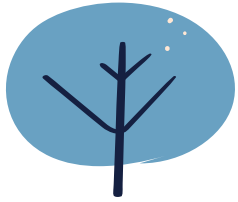


Dr. Ashanti Johnson



- Geochemist, Chemical Oceanographer
- One of the first female Black chemical oceanographers and the first African American to earn a Ph.D. in oceanography from Texas A&M University
- CEO/Superintendent of Cirrus Academy, a statewide STEAM charter school system in Georgia





Dr. Evan B. Forde



- Oceanographer, graduated with an M.S. in geophysics and marine geology from Columbia!
- First African-American to conduct a research mission aboard a submersible craft - on the Nekton Gamma in 1979



Dr. Lisa White



- Geologist, Micropaleontologist
- Specializes in education and outreach at the University of California Museum of Paleontology and is an adjunct professor of Geology at San Francisco State University





Dr. John Dabiri

- Biophysicist, Mechanical Engineer
- Best known for his research of the hydrodynamics of jellyfish propulsion
- Designed a vertical-axis wind farm adapted from schooling fish



Dr. J. Marshall Shepherd



- Meteorologist, Climatologist
- First African-American to receive a Ph.D. in meteorology from Florida State University
- Hosts The Weather Channel's "Weather Geeks" podcast

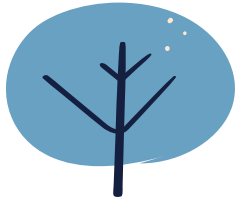




Dr. Michael Wise

- Geologist and expert on pegmatites
- Researches pegmatite rocks and the minerals they are made of (some of which may be in your smartphone)
- Geologist at the Smithsonian National Museum of Natural History





Dr. Margueritte Williams (1895 - 1991)



- First African American (man or woman) to receive PhD in geology in the United States
- Completed here Master's degree in Geology at Columbia University



Slideshow made by graduate students in the Earth and Environmental Sciences Department at Columbia University, Lamont Doherty Earth Observatory:



Kailani Acosta (left) is a third-year Ph.D. Student interested in biological oceanography and the roles of Phosphorus and Nitrogen in the upper ocean.

Elise Myers (center) is a fifth-year Ph.D. Candidate who uses experiments, ecological theory, and satellite imagery to develop predictive models of bacterial water quality in urban waters.

Arianna Varuolo-Clarke (right) is a third-year Ph.D. Student interested in climate dynamics and understanding what drives precipitation and drought variability in South America.