

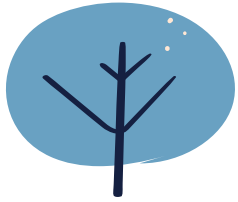


Black History Month at LDEO



Celebrating Black scientists!

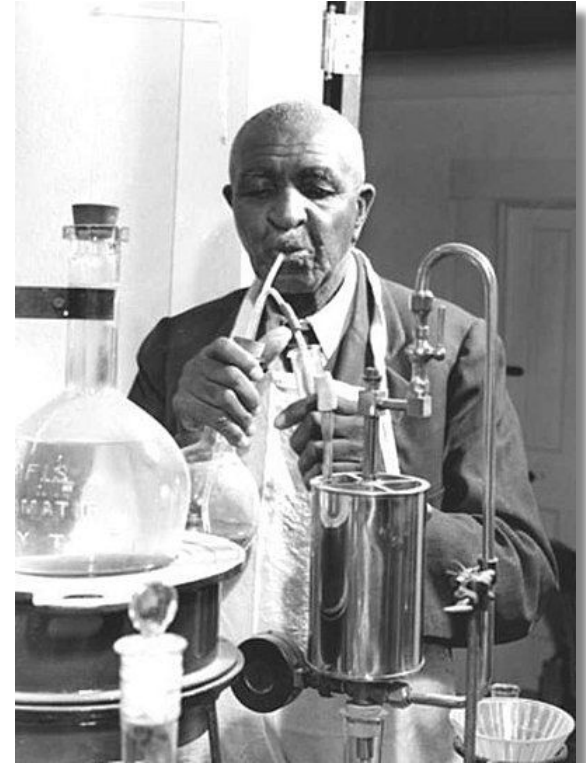




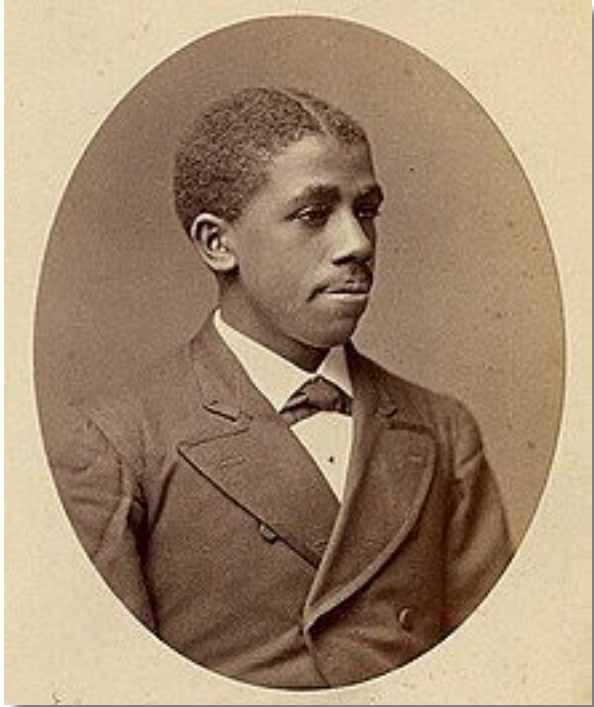
George Washington Carver (1864 - 1943)



- 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

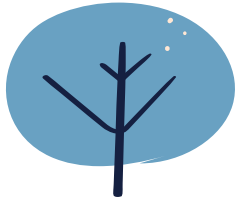


Stephanie D. Wilson



- 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!)

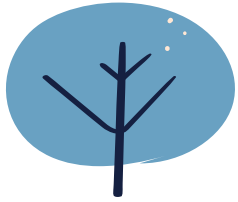


Dr. Percy Lavon Julian (1899 - 1975)



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

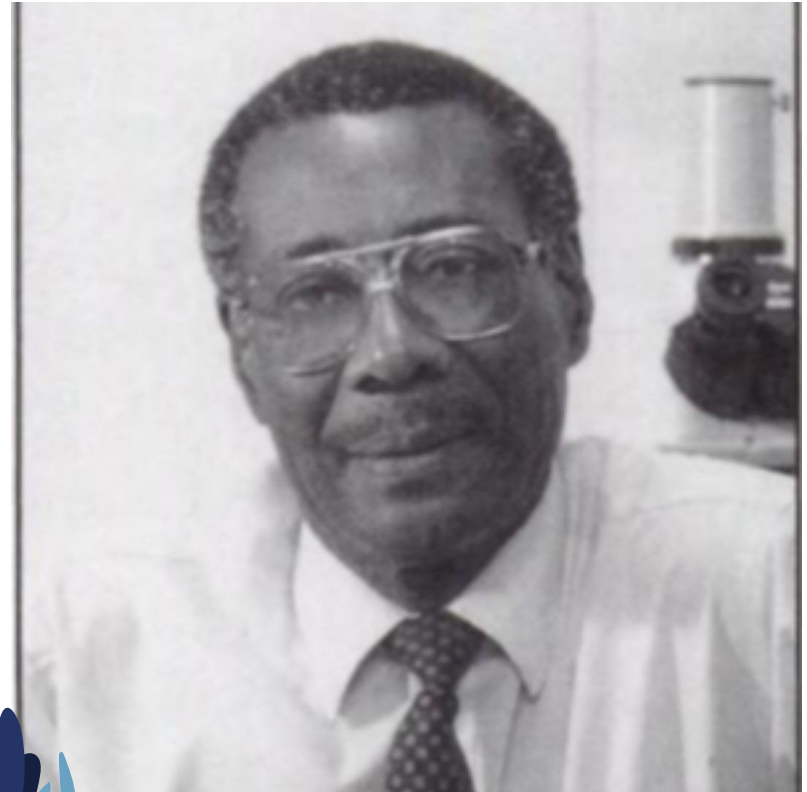




Dr. Mack Gipson (1931 - 1995)



- 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

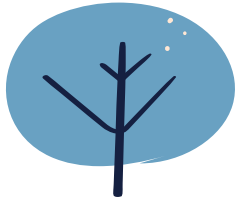


Dr. Patricia Bath (1942 - 2019)



- 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



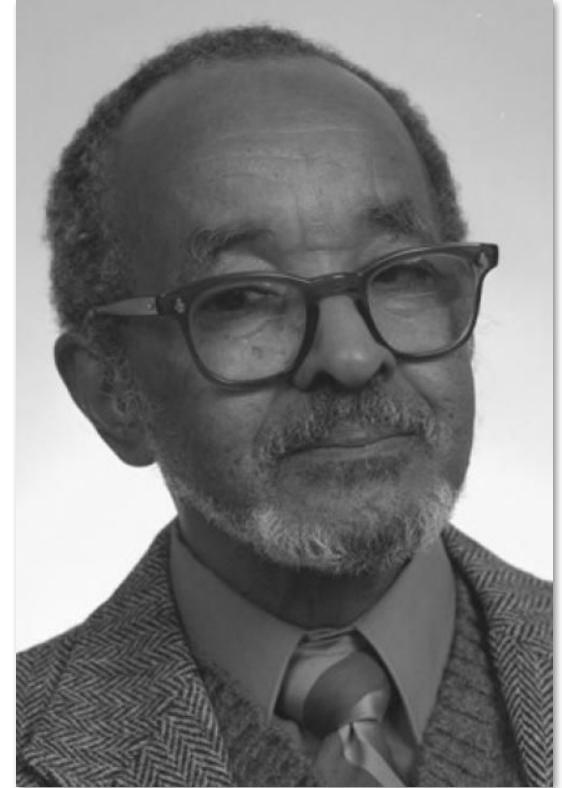
- Chemist
- Key scientist who worked on the Manhattan Project during the Second World War
- Primarily responsible for the design and implementation of a distillation process for purifying hydrogen fluoride





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

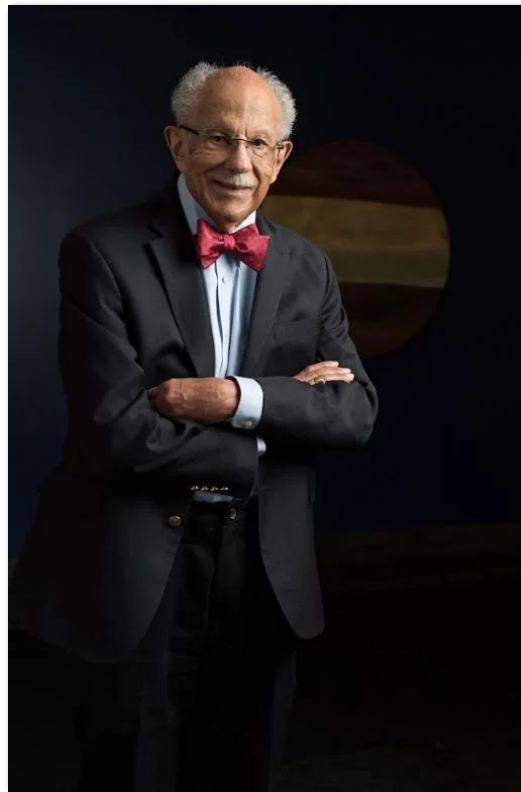




Dr. Warren M. Washington



- 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.

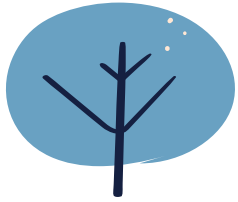


Dr. Ashanti Johnson



- 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

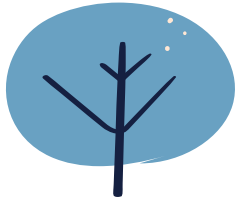




Dr. Michael Wise

- 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 fourth-year Ph.D. Candidate interested in biological oceanography and the roles of Phosphorus and Nitrogen in the upper ocean.

Elise Myers, PhD (center) defended her dissertation, in which she used experiments, modeling, and water optical properties to develop predictive models of bacterial water quality in urban waters.

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