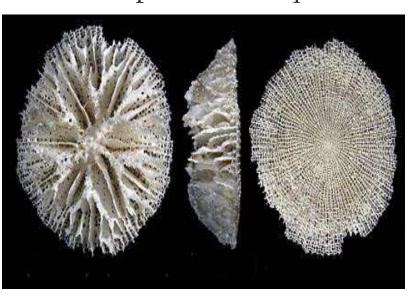
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37 EC	38 MN	39 MJ	40 DJV	41 MS	42 HAH	43 Alh	44 Lah	45 Pl		46 EH	47 VLM M	48 GM W	49 CFS	50 MD	51 KB	52 IPM	53 HRB	54 LGJ
55 TH	56 CTL	57 BB	58 MJ	59 BB	60 Jah	61 Meh	62 LAQ	63 Cr		64 Jap	65 Atbr	66 Ae	67 EZF	68 LG	69 TW	70 WM	71 ESI	72 GWC
73 JPC	74 HM M	75 GB	76 Kj	77 MH	78 JRC	79 AB	80 Wlh	81 AL		82 CLR	83 AAS	84 RLH	85 TAFS	86 MRH	87 E0	88 DB	89 JWD	90 MDK

1. Joan Murrell Owens

Joan Murrell Owens was an American educator and marine biologist specializing in corals. She earned degrees in geology, fine art, and guidance counseling. She described a new genus, Rhombopsammia, and three new species of button corals, R. niphada, R. squiresi, and

Letepsammia franki.



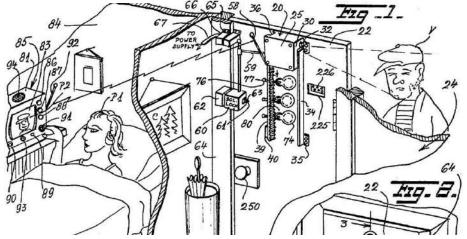






2. Marie Van Brittan Brown

Marie Van Brittan Brown was the American inventor of the home security system in 1966, along with her husband Albert Brown. In the same year they jointly applied for a patent, which was granted in 1969.



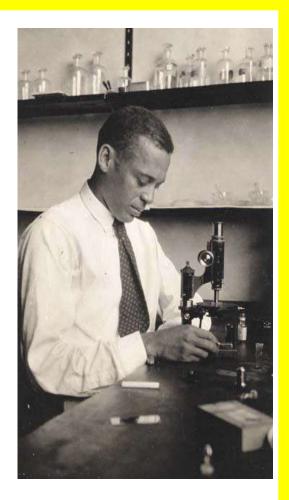






3. Ernest Everett Just

Ernest Everett Just was American biologist, academic and science writer. Just's primary legacy is his recognition of the fundamental role of the cell surface in the development of organisms.

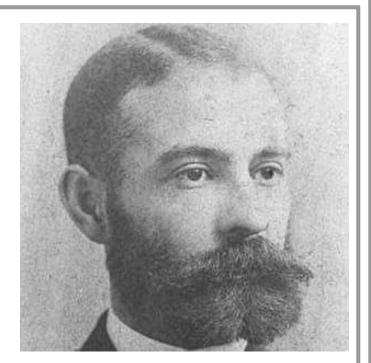






4. Daniel Hale Williams

Daniel Hale Williams performed the first successful open heart surgery during an emergency procedure. He is also known to be the founder of Provident Hospital, the first non-segregated hospital in the U.S., located in Chicago, Illinois.

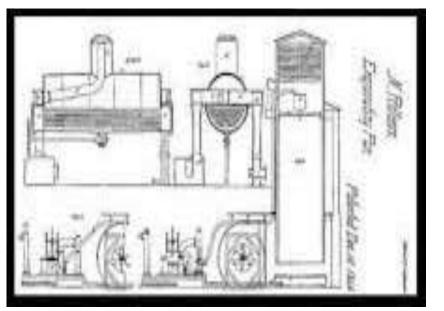


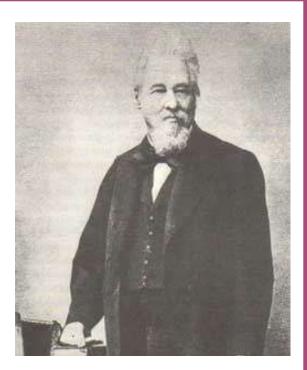


Learn more!

5. Norbert Rillieux

Norbert Rillieux was American inventor who was widely considered one of the earliest chemical engineers; he greatly influenced the food industry by revolutionizing how sugar was processed.





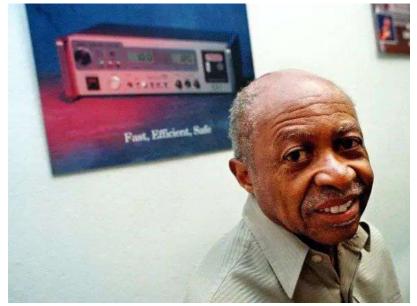




6. Roy Clay, Sr.

Roy Clay, Sr. is known as the "Godfather of Silicon Valley".

He worked on writing software that demonstrated how particles of radiation would spread through the atmosphere after an atomic explosion. He later became a key figure in the development of Hewlett-Packard's computer divisions and actually led the team that engineered HP's entrance into the computer market.







7. George Carruthers

George Carruthers was an inventor, physicist, engineer and space scientist.

Carruthers perfected a compact and very powerful ultraviolet camera/spectrograph for NASA to use when it launched Apollo 16 in 1972.

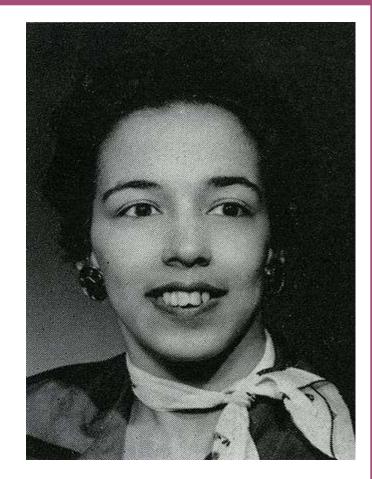




8. Yvonne Young Clark

Yvonne Young Clark was a pioneer in the field of science and engineering. She worked on:

- Recoilless weapons at Frankfort Arsenal;
- On Saturn 5 engines where she identified hot spots for the NASA division in Huntsville, Alabama; and
- On receptacles for returning moon specimens to Earth at the NASA Manned Spacecraft Center in Houston.







9. Neil deGrasse Tyson

Neil deGrasse Tyson is an American astrophysicist, planetary scientist, author, and science communicator. Since 1996, he has been the Director of the Hayden Planetarium in New York City.





<u>Learn more!</u>

10. Granville Woods

Granville Woods invented 15 different appliances for the electric railways and held nearly 60 patents at the time of his death.

His most notable invention was the multiplex "induction telegraph," which allowed people to communicate by voice over telegraph wires, which ultimately prevented train accidents.







11. Margaret James Strickland Collins

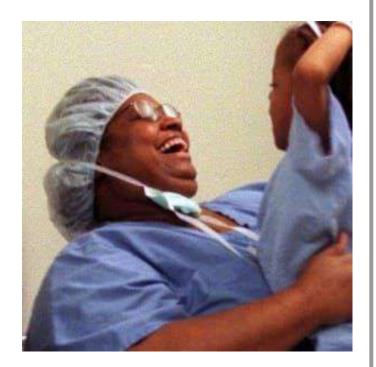
Margaret James Strickland Collins was an African American child prodigy. She became an entomologist specializing in the study of termites, and was a civil rights advocate. Collins was nicknamed the "Termite Lady" because of her extensive research on termites.





12. Alexa Canady

Alexa Canady was the first African American woman in the United States to become a neurosurgeon.







13. Elbert Cox

Elbert Cox was an American mathematician. He was the first African American to earn a PhD in Mathematics.



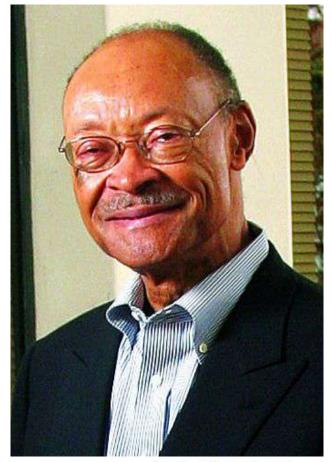




14. Frank Greene Jr.

Frank Greene Jr. was the first Black cadet to make it through the U.S. Air Force ROTC program in 1961 and later became an Air Force captain.

He also developed high-speed semiconductor computer-memory systems at Fairchild Semiconductor R&D Labs in the 1960s and starting two technology companies. Later, he founded NewVista Capital, a venture firm focused on firms led by minority and female professionals.







15. Ed Dwight

Ed Dwight was the first African American astronaut candidate. He was also an IBM computer systems engineer, real estate developer, professional sculptor, and former Air Force test pilot.







16. Otis Boykin

Otis Boykin was an inventor and engineer. His inventions include improved electrical resistors used in computing, missile guidance, and pacemakers. April 7, 1953 2 634 355 F. BOYKIN ET / ELECTRICAL RESISTOR Filed June 23, 1952

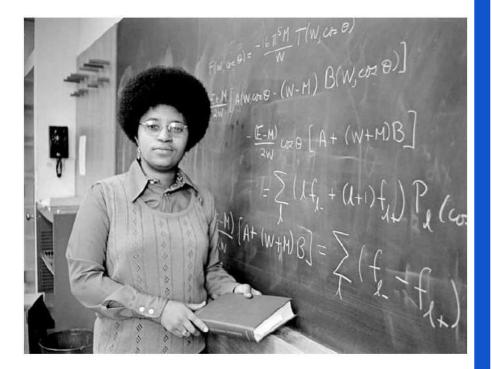




Learn more!

17. Shirley Ann Jackson

Shirley Ann Jackson is a physicist who studies how particles move to different places. She has done research on tiny devices called semiconductors, which are used in electronics.







18. Garrett Augustus Morgan, Sr.

Garrett Augustus Morgan, Sr. was an American inventor, businessman, and community leader. His most notable inventions were a three-position traffic signal and an early version of both gas masks and safety goggles (important in WWI).





<u>Learn more!</u>

19. Roger Arliner Young

Roger Arliner Young was an American scientist of zoology, biology, and marine biology. She was the first African American woman to earn a PhD in zoology.







20. Patricia Era Bath

Patricia Era Bath is an American ophthalmologist, inventor, humanitarian, and academic.

She was an early pioneer of laser cataract surgery.

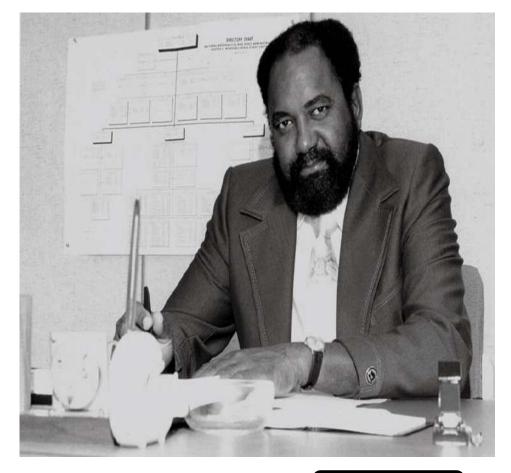






21. Clyde Foster

Clyde Foster was a scientist and mathematician, and a significant figure who worked for the NASA. His calculations helped launch rockets into space and throughout his career he was an advocate for African Americans in Science.







22. Valerie Foster

Valerie Thomas - While managing a project for NASA's image processing systems, Thomas' team spearheaded the development of the first satellite to send images from space. The technology developed by Thomas is used by NASA to this day. Scientists are currently exploring how to use this in surgical tools and even television and video.







23. Marguerite Thomas Williams

Marguerite Thomas Williams was America's first Black geology PhD, geologist and geographer. Because she focused her career on teaching rather than research, her legacy is less prominent than that of many scholars. However, she stood at the university lectern in a time in which it was rare for either a woman or a person of color to even be in the classroom.







24. St. Elmo Brady

St. Elmo Brady was the first African American to earn a PhD in chemistry in the United States. After completing his doctoral degree, Brady taught at historically Black universities, leaving an impressive teaching legacy of strong undergraduate and graduate chemistry programs.





Learn more

25. Bettye Washington Greene

Bettye Washington Greene was an American industrial research chemist. She was the first African American female PhD chemist to work in a professional position at the Dow Chemical Company. At Dow, she researched latex and polymers.







26. Joseph S. Francisco

Joseph S. Francisco is an American chemist. He became the 2nd African American president of the American Chemical Society in 2009. He researches atmospheric chemistry.







27. Marie Maynard Daly

Marie Maynard Daly was an American biochemist. She was the first Black American woman in the United States to earn a PhD in chemistry. Her research was critical to modern healthcare because she linked high cholesterol with cardiovascular disease.







28. Marjorie Lee Browne

Marjorie Lee Browne was one of the first African American women to earn a PhD She became a professor of mathematics and used much of her own money to help gifted mathematics students continue their education.

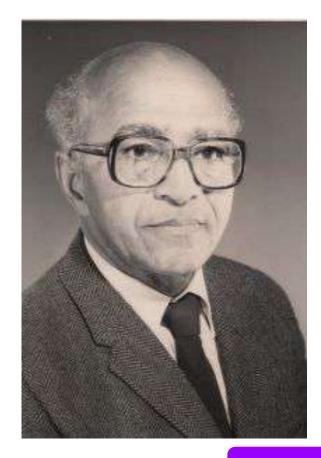






29. David Blackwell

David Blackwell was an American mathematician who made significant contributions to game theory, probability theory, information theory, and Bayesian statistics.







30. Melba Roy Mouton

Melba Roy Mouton was an American mathematician who served as Assistant Chief of Research Programs at NASA's Trajectory and Geodynamics Division in the 1960s. She headed a group of NASA mathematicians called "computers".

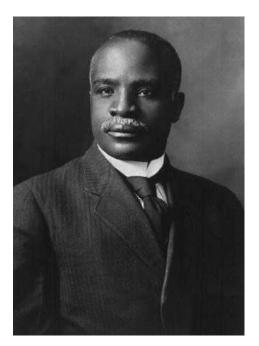






31. Kelly Miller

Kelly Miller was an American mathematician, sociologist, essayist, newspaper columnist, author, and an important figure in the intellectual life of Black America for close to half a century. He was known as "the Bard of the Potomac"







32. Ayanna Howard

Ayanna Howard is a robot engineer. She is a professor at Georgia Tech where she Chairs the School of Interactive Computing. She designs and makes robots, using people as models for making them. She has contributed greatly to the fields of artificial intelligence, robotics, and computer vision.







33. Christine Darden

Christine Darden was an aerospace engineer who worked with NASA for over 40 years. She was an expert in designing wings for aircraft that travel faster than the speed of sound. She also researched the sonic boom.

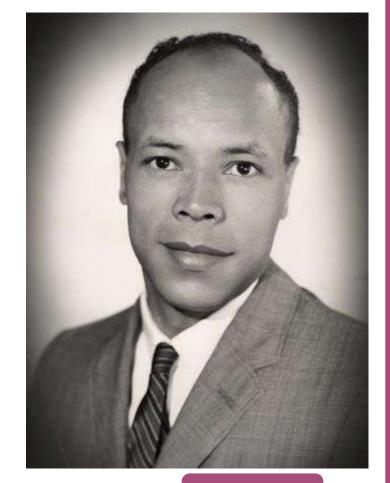






34. Meredith Gourdine

Meredith Gourdine was an athlete, engineer, and physicist. One of his earliest accomplishments was winning a silver medal at the 1952 Summer Olympics in Helsinki. He earned his bachelor's degree in engineering in 1953 and a PhD in engineering from Cal Tech where he worked at the Jet Propulsion Laboratory.

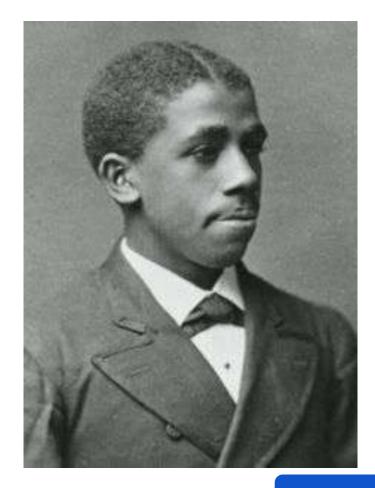




Learn more!

35. Edward Bouchet

Edward Bouchet was an American physicist and educator and was the first African American to earn a PhD from any American university.

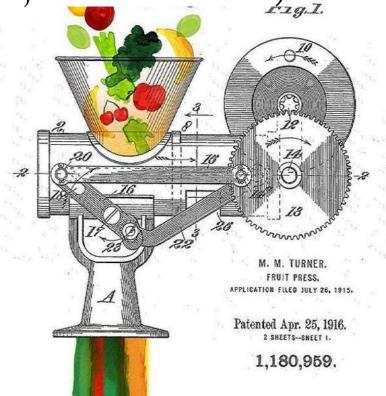






36. Madeline Turner

Madeline Turner was the inventor of Turner's Fruit-Press (the original design on which all modern juicers are based).



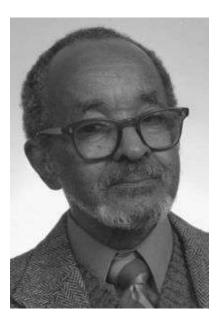






37. Emmett Chappelle

Emmett Chappelle was an American scientist who innovated a way to harvest the power of bioluminescence. This helped to facilitate important findings within the fields of biology and chemistry.





<u>Learn more!</u>

38. Marcella Nunez

Marcella Nunez is a physician and associate professor of medicine and epidemiology at Yale School of Medicine. Most recently she was appointed by President Joe Biden to be one of three co-chairs of his National COVID-19 Advisory Board, the highest-ranking group in the U.S. studying the coronavirus pandemic





<u>Learn more!</u>

39. Mae Jemison

Mae Jemison is an American engineer, physician, and former NASA astronaut. She became the first Black woman to travel into space when she served as a mission specialist aboard the Space Shuttle Endeavour.







40. Dorothy Johnson Vaughan

Dorothy Johnson Vaughan was American mathematician and human computer who worked for the National Advisory Committee (now called NASA), at Langley Research Center in Hampton, Virginia.







41. Marshall Shepherd

Marshall Shepherd is a renowned international expert in weather and climate at the University of Georgia. He has been interested in weather since he made his own weather-collecting instruments for a school science project. His research uses weather events to study climate change and current weather.







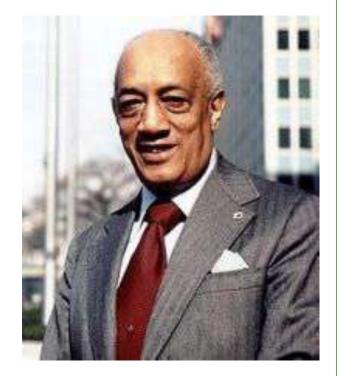
42. Henry Aaron Hill

Henry Aaron Hill was the American Chemical Society's 1st African American president in 1977.

As a chemist, he performed research on water-based paints, firefighting foam, and synthetic rubber.

He founded National Polychemicals, Inc, to supply chemical intermediates for the polymer industry.

He also founded Riverside Research Laboratories, which offered research, development, and consulting services in polymer production.







43. Alma Levant Hayden

Alma Levant Hayden was an American chemist, and one of the first African American women to gain a scientist position at the National Institutes of Health (NIH) in the 1950s. Hayden came to national attention in 1963 when she led the team that exposed Krebiozen, a long-controversial alternative and expensive drug promoted as "anti-cancer", as an ineffective treatment.







44. Lloyd Augustus Hall

Lloyd Augustus Hall invented a number of ways to better preserve food. During his career he amassed 59 U.S. patents. Many food preservatives used today were pioneered by Dr. Hall's methods.

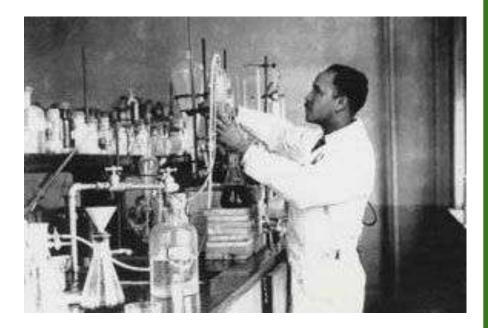






45. Percy Lavon Julian

Percy Lavon Julian was an American research chemist and a pioneer in the chemical synthesis of medicinal drugs from plants. Among many breakthroughs, he discovered a treatment for glaucoma.







46. Euphemia Haynes

Euphemia Haynes was an American mathematician and educator. She was the first African American woman to earn a PhD in mathematics.







47. Vivienne Lucille Malone-Mayes

Vivienne Lucille Malone-Mayes was an American mathematician and professor. Malone-Mayes studied properties of functions, as well as methods of teaching mathematics.







48. Gladys Mae West

Gladys Mae West is an American mathematician known for her contributions to the mathematical modeling of the shape of the Earth, and her work on the development of the satellite geodesy models that were eventually incorporated into the Global Positioning System.







49. Clarence Francis Stephens

Clarence Francis Stephens was the 9th African American to earn a PhD in mathematics. He is credited with inspiring students and faculty at SUNY Potsdam to form the most successful United States undergraduate mathematics degree programs in the past century.







50. Mark Dean

Mark Dean is one of the most prominent Black inventors in computer science.





Mark's work at IBM in the 1980's was instrumental in the creation of the PC and held 3 of IBM's original 9 PC patents. Through his career, he has helped IBM make instrumental changes in the research and application of systems technology, from circuits to operating environments. One of his most recent inventions came while leading the team that produced the 1-Gigahertz chip.



51. Kimberly Bryant

Kimberly Bryant is an electrical engineer. She started Black Girls Code, a program that teaches computer programming to school-age girls in after-school and summer programs with the goal of teaching one million Black girls to code by 2040.

Bryant was recognized as a White House Champion of Change for Tech Inclusion in 2013 and voted one of the 25 Most Influential African Americans In Technology by Business Insider.







52. Irving Pressley McPhail

Irving Pressley McPhail was a professor, mentor, President of the National Action Council for Minorities in Engineering, Inc (NACME), and most recently President of Saint Augustine's College in Raleigh, North Carolina.

Tragically, McPhail passed in October 2020 due to COVID-19.

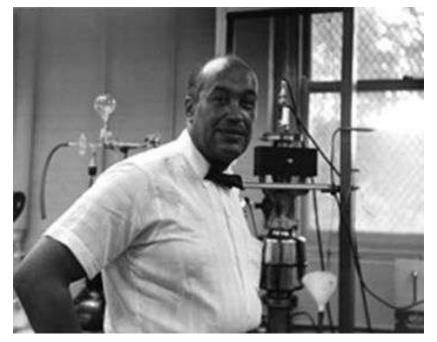






53. Herman Russell Branson

Herman Russell Branson was an American physicist, chemist, and best known for his research on the alpha helix protein structure. He was also the president of two colleges.

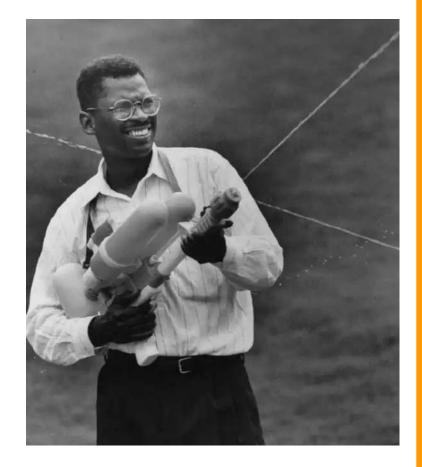






54. Lonnie George Johnson

Lonnie George Johnson is an American inventor, aerospace engineer, and entrepreneur. He worked for the US Air Force and NASA. In his free time, he invented the super soaker!







55. Tyrone Hayes

Tyrone Hayes is an American biologist and professor of Integrative Biology at UC Berkeley. He is known for his research that concludes the widely used herbicide atrazine is an endocrine disruptor that demasculinizes and feminizes male frogs.





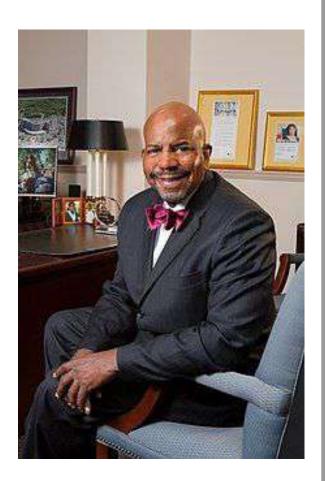


56. Cato Thomas Laurencin

Cato Thomas Laurencin is a physician, surgeon, scientist, and engineer at the University of Connecticut.

He and colleagues were the first to develop nanofiber technologies for tissue regeneration and the development polymer-ceramic systems for bone regeneration.

He invented the Laurencin-Cooper ligament for ACL regeneration, and engineered grafts for shoulder rotator cuff tendon repair and regeneration.





Learn more

57. Beth Brown

Beth Brown is an astrophysicist. She works at NASA, where one focus of her work is studying galaxies that produce energy in the form of x-rays.







58. Mary Jackson

Mary Jackson was an American mathematician and aerospace engineer at the National Advisory Committee for Aeronautics (now called NASA). She worked at Langley Research Center in Hampton, Virginia, for most of her career.







59. Benjamin Banneker

Benjamin Banneker was a mathematician, astronomer, land surveyor, and wrote almanacs in the late 1700s. He assisted in surveying the 10 mile square site of what became the Federal capital in Washington, D.C.

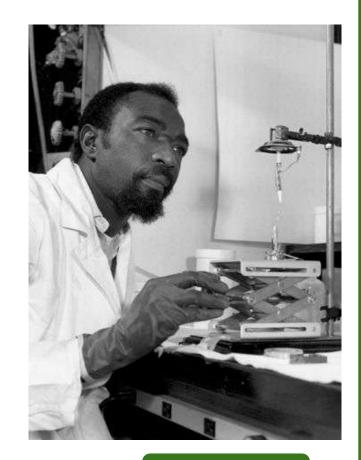






60. James Andrew Harris

James Andrew Harris was the first African American to participate in a major new-element identification program. He was also a co-discoverer of elements 104 and 105 (rutherfordium and dubnium).

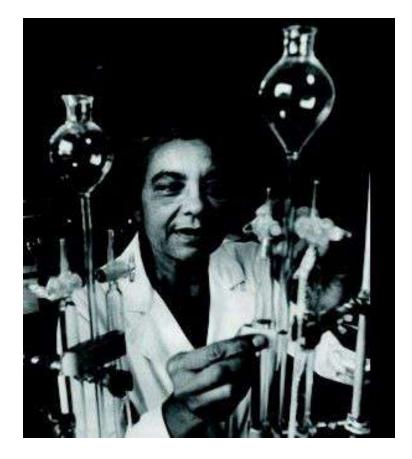






61. Mary Elliott Hill

Mary Elliott Hill was one of the earliest African American women to become a chemist. She was known as both an organic and analytical chemist. Hill worked on the properties of UV light and, in collaboration with her husband Carl McClellan Hill, developing ketene synthesis which supported the development of plastics.





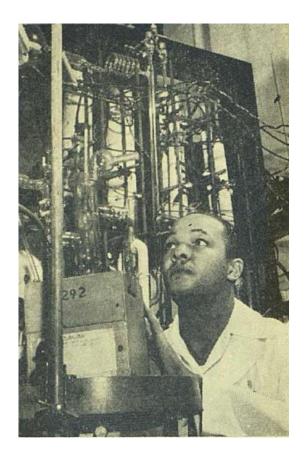


62. Lloyd Albert Quarterman

Lloyd Albert Quarterman was recruited to the Manhattan Project, part of a team that worked to separate the U-235 isotope to make atomic weapons during WWII.

After the war, he continued his studies of fluoride solutions, and developed a "diamond window" through which it was possible to study its complex molecular structure.

Towards the end of his life, he also began preliminary research into synthetic blood.



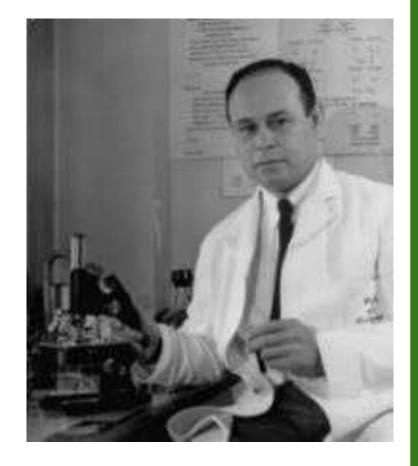




63. Charles Richard Drew

Charles Richard Drew was one of the most important scientists of the 20th century.

He was instrumental in the use and preservation of blood plasma during WWII, which saved thousands of lives and innovated the nation's blood banking process and standardized procedures for long-term blood preservation and storage techniques adapted by the American Red Cross.

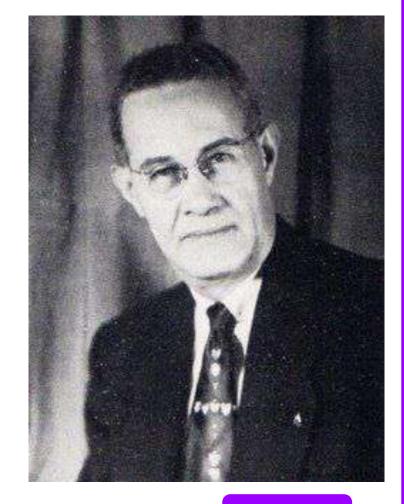






64. Joseph Alphonso Pierce

Joseph Alphonso Pierce was an American mathematician and statistician. He was one of the first African Americans to earn a PhD in Mathematics in the United States. He was an educator who had a long career as teacher, administrator, and researcher.

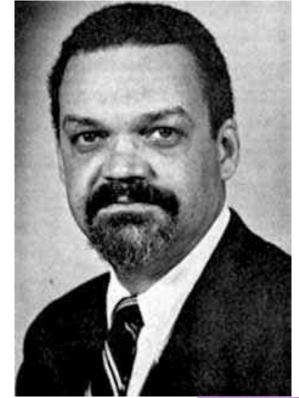






65. Albert Turner Bharucha-Reid

Albert Turner Bharucha-Reid was an American mathematician and theorist who worked extensively on probability theory, Markov chains, and statistics. He wrote 6 books on various topics like economics, physics, and biology.







66. Annie Easley

Annie Easley was an American computer scientist, mathematician, and rocket scientist. She worked for the Lewis Research Center at NASA.







67. Etta Zuber Falconer

Etta Zuber Falconer was an educator and mathematician. She was one of the earlier African American women to earn a PhD in mathematics. She worked much of her career at Spelman College, where she eventually served as department head and associate provost.







68. Lisa Gelobter

Lisa Gelobter is a computer scientist, entrepreneur, and technology executive. Gelobter is credited with developing the animation used to create GIFs. She also helped to redesign Healthcare.gov, the website used to enroll Americans under the Affordable Care Act.





As the Chief Digital Service Officer for the U.S. Dept of Education she worked on the team that redesigned the College Scorecard, a ratings system that shows graduation rates, post-college earnings, and student debt levels for universities across the country.

69. Tristan Walker

Tristan Walker is the co-founder of Code2040, an organization that aims to create a pipeline of talented Black and Hispanic students and funnel them to some of the world's biggest tech firms.

Walker is also the founder and CEO of Walker & Co., a startup making health and beauty products for people of color, which was recently bought by Procter & Gamble Co.







70. William Murrell

William Murrell is an entrepreneur and computer scientist who started Boston's largest Black-owned computer store and pioneered Black-themed websites in the 1990s.

He grew up fixing radios, TVs, and any other electronics he could find.



After 5 years working for IBM, Murrell gained such familiarity with IBM machines that he was able to reverse engineer computer processes and programs, and he began developing designs on his own.



71. Elmer Samuel Imes

Elmer Samuel Imes was the second African American to earn a Ph.D. in physics and the first in the 20th century. He was among the first African American scientists to make important contributions to modern physics.







72. George Washington Carver

George Washington Carver was an agricultural scientist and inventor who developed hundreds of products using peanuts (though not peanut butter, as is often claimed), sweet potatoes and soybeans.







73. Jewel Plummer Cobb

Jewel Plummer Cobb was an American biologist, cancer researcher, professor, dean, and academic administrator. She contributed to the field of cancer research by studying the cure for melanoma.







74. Henry McKee Minton

Henry McKee Minton was an African American pharmacist and physician who helped found the first African American fraternity, Sigma Pi Phi, commonly known as The Boulé. Minton also founded the second Black medical institution in Philadelphia, Mercy Hospital (now Mercy-Douglass Hospital).





<u>Learn more!</u>

75. Guion Bluford

Guion Bluford is best known as the first African American man in Space. He was a mission specialist for the Challenger launch in 1983. He was also a decorated Air Force pilot in the Vietnam War.





Learn more!

76. Katherine Johnson

Katherine Johnson was an American mathematician whose calculations of orbital mechanics as a NASA employee were critical to the success of the first and subsequent U.S. crewed spaceflights.

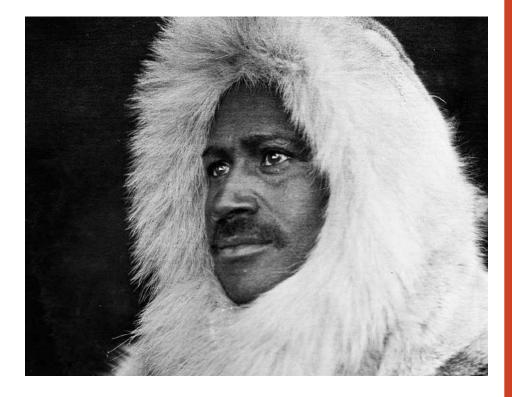






77. Matthew Henson

Matthew Henson was an American explorer best known as the co-discoverer of the North Pole in 1909 (along with Robert Edwin Peary).







78. John R. Cooper

John R. Cooper was an inventor who holds several patents in the development of fluorine-rubber compounds that are resistant to heat. These have important applications for seals in jet engines.







79. Alice Ball

Alice Ball was an American chemist who developed an injectable oil extract that was the most effective treatment for leprosy until the 1940s.

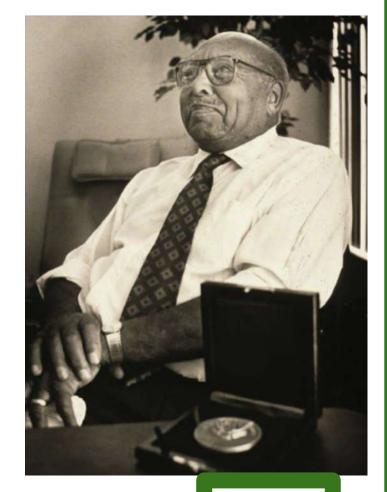






80. Walter Lincoln Hawkins

Walter Lincoln Hawkins was an American chemist and engineer widely regarded as a pioneer of polymer chemistry; he is best known for inventing a plastic coating for telephone wires that made universal phone service possible.







81. Angie Lena Turner King

Angie Lena Turner King was an American chemist, mathematician, and educator. King was an instructor of chemistry and mathematics at West Virginia State High School, and a professor of chemistry and mathematics at West Virginia State College in Institute.

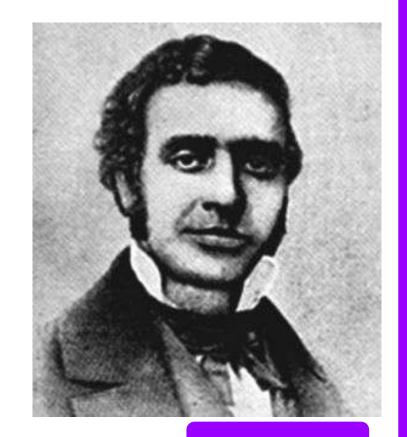






82. Charles Lewis Reason

Charles Lewis Reason was an American mathematician, linguist, and educator, in addition to being a political activist and abolitionist. He was the first African American college professor in the United States, teaching at New York Central College, McGrawville.







83. Abdulalim Abdullah Shabazz

Abdulalim Abdullah Shabazz is an African American Professor of Mathematics. He received the National Association of Mathematicians Distinguished Service Award for his years of mentoring and teaching excellence. President Bill Clinton awarded Shabazz with a National Mentor award in September 2000.







84. Rudy Lee Horne

Rudy Lee Horne was an American mathematician and professor of mathematics at Morehouse College. He worked on dynamical systems, including nonlinear waves. He was the mathematics consultant for the film Hidden Figures.







85. Thyrsa Anne Frazier Svager

Thyrsa Anne Frazier Svager was an American academic who was one of the first African American women to earn a PhD in mathematics. Born in Ohio, she graduated from high school at the age of 16 before getting here college degrees.







86. Marc Regis Hannah

Marc Regis Hannah co-founded Silicon Graphics in the 1980's and was named the company's principal scientist. They went on to create graphics for many major movies in the 1980s and 1990s (like Jurassic Park, Aladdin, Beauty and the Beast, The Hunt for Red October, and Field of Dreams). This technology was later used by

George Lucas to create Terminator 2.







87. Eric Osborn

Eric Osborn is founder of the nonprofit HERE Seattle which has a goal of creating paths to tech for young Black and Latino boys the way many other programs are doing for young girls. The initiative aims to reach boys who are underrepresented in the tech field and underserved by other programs.

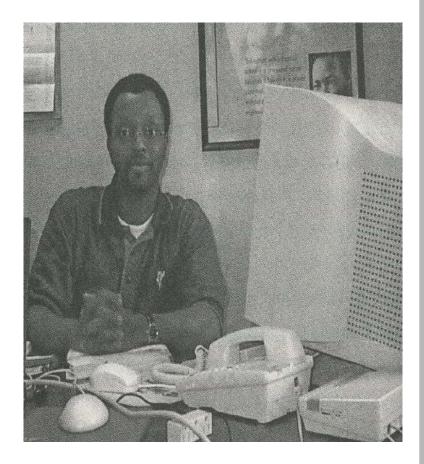






88. Derrick Brown

Derrick Brown is a computer scientist, engineer, and technology entrepreneur who pioneered Black-related websites and search engines in the 1990s.







89. John Warren David

John Warren Davis earned a PhD in Chemistry and Physics in 1913. He was the 5th and the longest president of West Virginia State University from 1919 to 1953. He is also known for founding one of the first chapters of the National Association for the Advancement of Colored People (NAACP).







90. Mary Beatrice Davidson Kenner

Mary Beatrice Davidson Kenner is an inventor of numerous products we use today and has the most patents of any African American woman. She invented the sanitary belt, a toilet paper holder, and attachments for a walker (among other things).





