



AMERICAN  
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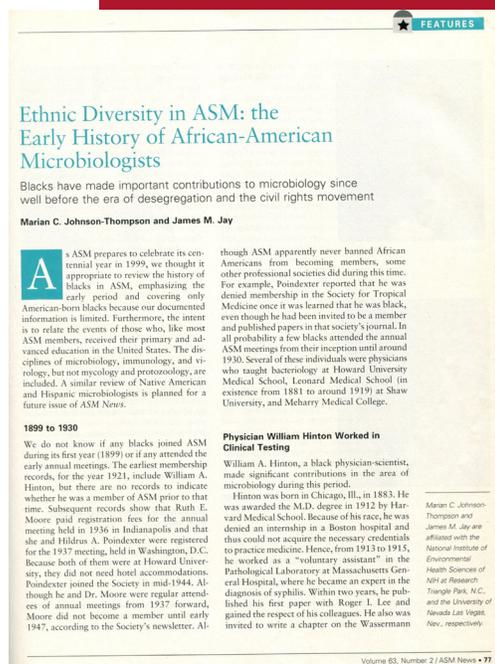
# Ethnic Diversity in ASM: the Early History of African-American Microbiologists



Blacks have made important contributions to microbiology since well before the era of desegregation and the civil rights movement.

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As ASM prepares to celebrate its centennial year in 1999, we thought it appropriate to review the history of blacks in ASM, emphasizing the early period and covering only American-born blacks because our documented information is limited. Furthermore, the intent is to relate the events of those who, like most ASM members, received their primary and advanced education in the United States. The disciplines of microbiology, immunology and virology, but not mycology and protozoology, are included. A similar review of Native American and Hispanic microbiologists is planned for a future issue of *ASM News*.

## 1899 to 1930

We do not know if any blacks joined ASM during its first year (1899) or if any attended the early annual meetings. The earliest membership records, for the year of 1921, include William A. Hinton, but there are no records to indicate whether he was a member of ASM prior to that time. Subsequent records show that Ruth E. Moore paid registration fees for the annual meeting held in Indianapolis and that she and Hildrus A. Poindexter were registered for the 1937 meeting, held in Washington, D.C. Because both of them were at Howard University, they did not need hotel accommodations. Poindexter joined the Society in mid-1944. Although he and Dr. Moore were regular attendees of annual meetings from 1937 forward, Moore did not become a member until early 1947, according to the Society's newsletter. Although ASM apparently never banned African Americans from becoming members, some other professional societies did during this time. For example, Poindexter reported that he was denied membership in the Society for Tropical Medicine once it was learned that he was black, even though he had been invited to be a member and published papers in that society's journal. In all probability, a few blacks attended the annual ASM meetings from their inception until around 1930. Several of these individuals were physicians who taught

bacteriology at Howard University Medical School, Leonard Medical School (in existence from 1881 to around 1919) at Shaw University, and Meharry Medical College.

## Physician William Hinton Worked in Clinical Testing

William A. Hinton, a black physician-scientist, made significant contributions in the area of microbiology during this period.

Hinton was born in Chicago, Ill., in 1883. He was awarded the M.D. degree in 1912 by Harvard Medical School. Because of his race, he was denied an internship in a Boston hospital and thus could not acquire the necessary credentials to practice medicine. Hence, from 1913 to 1915, he worked as a "voluntary assistant" in the Pathological Laboratory at Massachusetts General Hospital, where he became an expert in the diagnosis of syphilis. Within 2 years, he published his first paper with Roger I. Lee and gained the respect of his colleagues. He also was invited to write a chapter on the Wassermann reaction in the leading textbook, *Preventative Medicine and Hygiene*.

Hinton's rapidly acquired expertise and recognition led in 1915 to dual appointments, as Director of the Laboratory Department of the Boston Dispensary and Chief of the Wassermann Laboratory of the Massachusetts Department of Public Health, which he held until his retirement in 1953. In 1927, Hinton developed a flocculation test for syphilis. Later, with John Davies, he developed a test for

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the detection of syphilis in spinal fluids that became known as the Davies-Hinton test. In 1936, Hinton wrote with authority and insight the well-received textbook, *Syphilis and Its Treatment*. The text was studied in Europe and the U.S. and was hailed as a significant contribution to the field of syphilis diagnosis and treatment.

During Hinton's tenure with the Wasserman Laboratory, the number of approved laboratories in Massachusetts expanded from 10 to 117, and they processed approximately 2,000 specimens of blood and spinal fluid per day. For years, the Wassermann Laboratory was informally known as the "Hinton Laboratory" because his test was the one most commonly used in the state. Subsequently, in 1975, the Massachusetts legislature formally recognized his many contributions when it passed a bill renaming the state laboratory the "Dr. William A. Hinton Laboratory."

Meanwhile, Hinton's academic career, which began in 1923 when he was appointed assistant in preventive medicine and hygiene at Harvard Medical School, was also moving forward. A year later, he was promoted to instructor in that subject and also in bacteriology and immunology. However, not until 1946 was he made lecturer, and only on the eve of his retirement in 1949 was he appointed clinical professor of bacteriology and immunology. Thus, he became the first African-American to be appointed professor at Harvard University. Years later, in 1960, the Harvard University "Memorial Minute," which was written by Nobel Laureate John Enders, lauded Hinton's many contributions. During this period, Hinton also taught at Simmons College, the Harvard School of Public Health and the Tufts Medical and Dental Schools. Moreover, Hinton's interest in training individuals for careers in medical



*William Hinton*

science was strong, and he became very active. For instance, he started an all-women school for laboratory technicians, the first of its kind, and its graduates were quickly hired throughout the country. By encouraging women to become medical technicians, he helped overcome the reluctance of the establishment to accept them in this role. Indeed, Hinton's attitudes toward women in science and medicine had an impact at home. One of his 2 daughters, Jane Hinton, became the co-developer of Mueller-Hinton agar. Moreover, she obtained a D.V.M. degree, and, before that, worked as a laboratory technician under H. A. Poindexter at Fort Huachuca during World War II.

Throughout his life, W. A. Hinton remained a very quiet and humble man who shunned publicity. While those around him knew his race and appreciated his contributions, he consistently chose to obscure his origins, fearing that widespread knowledge of his race would prevent full acceptance of his textbook and his other contributions. For this reason, he declined the Spingarn Medal of the National Association for the Advancement of Colored People, an annual award for singular achievements, in 1938. As another example of his preference for privacy, the ASM Archives show that, although Hinton was an ASM member since 1921, he apparently never attended an annual meeting. In 1963, in memory of his parents, who were born during slavery, he established the Dwight D. Eisenhower Scholarship Fund for graduate students at Harvard.

## Blacks Make Strides in Microbiology from 1930 Onward

Although more blacks lived in the South than in the North during the period 1930-1950, they were barred from entering major educational institutions. Of the first 12 to receive Ph.D.s in microbiology, 5 received undergraduate training at one of the historically black colleges/universities (HBCU), and 7 received their doctorates from one of the Big Ten universities (Table 1).

As noted in Table 1, Ruth E. Moore (1903—1994) was the first American black to receive a Ph.D. in microbiology (see *ASM News* vol. 61, p. 198). After receiving her degree in 1933 from Ohio State University, she came to Howard University, where she served as chair of the microbiology department in the medical school. Hildrus A. Poindexter (1901—1987) received his M.D. degree from Harvard Medical School in 1929, and subsequently received degrees from Columbia University (an M.A. and a Ph.D. in bacteriology in 1930 and 1932 and an M.S.P.H. in public health and tropical medicine in 1937). These degrees were earned during internship residency studies. In 1933, the same year as Moore, Frederick D. Patterson (1901—1988) received his Ph.D. from Cornell University in veterinary bacteriology or veterinary pathology. Earlier, Patterson earned a D.V.M. degree from Iowa State University. Patterson was president of Tuskegee University from 1935 to 1953, and he founded the United Negro College Fund.

Charles W. Buggs (1906—1991) was the first black Ph.D. microbiologist to hold faculty rank in a non-HBCU, moving from Instructor to Associate Professor (1943—1949) at Wayne State University Medical School. In 1958, he succeeded Ruth E. Moore as chair of the microbiology department at



*Ruth E. Moore*

Howard University Medical School, serving until 1970, when he moved to California. There he served as a faculty member at the Charles R. Drew Postgraduate School of Medicine (1969—1972), professor of microbiology at California State University

Long Beach (from 1973), and visiting professor at the University of Southern California (1969—1976).

Russell W. Brown (1905—1985) spent most of his career at Tuskegee University but, upon retirement in 1970, spent the next 5 years at the University of Nevada-Reno.

John L. Lockett (born ca. 1902; year of death unknown) received his Ph.D. from Rutgers University in 1937 in soil microbiology, and his major professor was Selman A. Waksman. Dr. Lockett spent his entire career at Virginia State

University, Petersburg, where he served as dean of agriculture. Under his influence, the first undergraduate bacteriology curriculum at an HBCU was established but was never taught due to a lack of staffing. Lockett Hall at Virginia State University is named in his memory.

James S. Lee (born 1903; year of death unknown), Clarence L. E. Monroe (1901 — ), Arthur Webb (1915—1982), and Charles M. Ford (1910—1956) spent their careers in HBCUs, as did all but 2 of the 12 individuals in Table 1. Lee served at North Carolina Central University; Webb served at Howard University, Southern University and the University of the District of Columbia; and Ford was a colleague of Russell W. Brown at Tuskegee.

As the oldest living black microbiologist, C. L. E. Monroe warrants some additional comments. He received his B.S. from the University of Pennsylvania in 1925 and his M.S. in 1926. He entered the U. of Chicago Medical School to pursue the M.D./Ph.D. but had to leave during his third year when the economic depression hit. While he taught for

several years at Morris Brown College in Atlanta, Ga., he learned that his Chicago credits would be accepted toward a Ph.D. in bacteriology in the University of Pennsylvania School of Public Health. He decided to pursue this degree, which he received in 1940.

Until his retirement in 1971, he spent 31 years at Morgan State University in Baltimore. The relatively few black microbiologists who were regular attendees at ASM annual meetings in the 1950s and 1960s looked forward to being hosted by Monroe and his wife, Bernice, in their hotel room/suite. At age 96, Monroe has a clear memory and is in overall good health. The late Mrs. Monroe was the sister of the well-known entertainer, Cab Calloway.

Albert H. Wheeler (1915-1994) and Welton I. Taylor (1919- ) are the only 2 of the first 12 black microbiology doctorates who found employment in non-HBCU institutions. Wheeler worked with Reuben L. Kahn, who developed the Kahn test for syphilis. Wheeler also became an expert on this disease during his professional career at the University of Michigan. Upon his appointment as assistant professor in 1952, he became the first black faculty member at that institution. Later, he served as mayor of the city of Ann Arbor from 1975 to 1978 and president of the state chapter of the NAACP.

Taylor has spent his professional years in the Chicago area as a noted clinical microbiologist and mycologist at several local hospitals, the University of Illinois School of Medicine, and as president of his own company. He developed XL agar in the mid-1960s (which is the base for XLD agar) and invented and patented Micro-Palette plates for a variety of enteric bacteria. The bacterium *Enterobacter taylorae* is named in his honor.



*Hildrus A. Poindexter*

## During 1951-1970, Many More Blacks become Professional Microbiologists

From 1951 onward, many more African-Americans obtained doctorates in microbiology, in part because the G.I. Bill enabled so many World War II veterans to afford university training. During this period, colleges and universities in the South were desegregated, expanding both educational and job opportunities for black microbiologists beyond HBCU campuses.

The vast majority of blacks who obtained Ph.D.s in microbiological fields in the 1960s and 1970s received undergraduate degrees in biology, botany or zoology, and about 75%

of them received those degrees from HBCUs. A mere 10 of the 80 HBCUs then had anyone on the faculty with a doctorate in microbiology. Southern University in Baton Rouge, La., became the first of these institutions to offer a full curriculum in bacteriology, and the first black undergraduate to major in bacteriology in the deep South completed this program in 1960 (see *ASM News* vol. 49, p. 273). Racial integration of colleges and universities began in the early 1960s. Although we do not know when the first black received an undergraduate degree in microbiology from a once racially segregated institution, the first 2 Ph.D.s were awarded in 1968 (Table 2). The first black to obtain a doctorate in a science from a once racially segregated university was Woodrow H. Jones in 1954, who did his research in limnology at University of Oklahoma, and the second such Ph.D. in 1955 went to Jeffrey Gipson in chemistry at the University of Texas-Austin. The late John H. Wallace became the first black microbiologist to hold faculty rank at a major southern institution when he was appointed associate professor at Tulane University in 1966. The University of Southern California was the first institution

**Table 1. The first 12 American-born blacks to receive Ph.D.'s in microbiology**

Name	Year	Institution
Hildrus A. Poindexter, M.D.	1932 <sup>(a)</sup>	Columbia University
Ruth E. Moore	1933 <sup>(a,b)</sup>	Ohio State University
Frederick D. Patterson, D.V.M.	1933 <sup>(a)</sup>	Cornell University
Charles W. Buggs	1934	University of Minnesota
Russell W. Brown	1936	Iowa State University
John L. Lockett	1937	Rutgers University
James S. Lee	1938	University of Michigan
Clarence L. E. Monroe	1940	University of Pennsylvania
Arthur Webb	1944	University of Illinois
Albert H. Wheeler	1944	University of Michigan
Charles M. Ford	1948	University of Wisconsin
Welton I. Taylor	1948	University of Illinois

a. See text.

b. Although Poindexter received the Ph.D. a year earlier, the status of being the first black Ph.D. microbiologist is generally accorded to Moore because she was the first to enter and complete a traditional Ph.D. program.

west of the Rockies to award a doctorate in microbiology to a black (W. Myron Hall, in 1965).

## ASM Leadership Speaks Out against Segregation

In 1956, the ASM annual meeting was held in Houston, Texas., marking the last time that a major ASM meeting was held in a city whose accommodations were not open to blacks. Black attendees at the 1956 meeting were not allowed to stay at the meeting hotel or even to ride the passenger elevators. One incident vividly illustrates a turning point for ASM. When the operator of the passenger elevator informed several black attendees that they had to use the freight elevator, a white attendee, Robert P. Williams, spoke up and told the elevator operator that he and the black attendees were going to ride together, which they did. Williams,

who died in 1993, served as ASM President in 1984. Thomas E. Shockley and Charles W. Johnson, both of Meharry Medical College, remember the elevator incident along with other such events from the 1956 meeting. Johnson, who went to Meharry with an M.S. in bacteriology to teach medical students but later obtained an M.D., was then department chair. He says that few blacks other than the Meharry microbiologists attended the meeting.

## Since 1971, Keeping Track of Black Microbiologists Is More of a Challenge

With legal barriers out of the way, American-born blacks have been increasingly free since the 1970s to pursue training in microbiology anywhere throughout the country. Somewhat surprisingly, the numbers that receive Ph.D.s in this field have

not increased as one might have expected. Among American blacks during the 1990s, U.S. universities award about 100 doctorates per year in mathematics, science, and engineering fields, with around 55% being in life/health/medical science fields. Between 6 and 10 of these Ph.D.s are awarded to blacks who work in microbiology, although it is much more difficult now to know who is a micro-

biologist. The first Ph.D. in microbiology that was awarded by Meharry Medical College to an African-American was in 1978, and the first from the Microbiology Department at Howard University was awarded in 1984.

Blacks increasingly have participated in ASM affairs since 1970 (Table 2), as evidenced by nominations for ASM governance, service on journal

**Table 2. Landmark events in the history of U.S.-born black microbiologists<sup>(a)</sup>**

Event	Year	Person(s)
First to join ASM	1921 <sup>(b)</sup>	William A. Hinton
First to attend ASM annual meeting	1936	Ruth E. Moore
First to hold faculty rank in a non-HBCU	1924	W. A. Hinton (Harvard Medical School)
	1943	C. W. Buggs (Wayne State University Medical School)
	1948	W. I. Taylor (University of Illinois School of Medicine)
	1952	A. H. Wheeler (University of Michigan)
First Ph.D. in microbiology	1933 <sup>(c)</sup>	Ruth E. Moore (Ohio State University)
First undergraduate degree in microbiology below Mason-Dixon line	1960	Gladys Braden (Southern University)
First Ph.D. from once racially segregated institutions	1968	Joe N. Hobbs (Southern University)
First to hold faculty rank in once segregated instit.	1966	Enouch Houser (University of Delaware)
First Ph.D. on west coast	1965	Richard A. Hogg (Vanderbilt University)
First to chair microbiology dept. In non-HBCU	1972	J.H. Wallace (Tulane University)
	1972	W. M. Hall (University of Southern California)
American Academy of Microbiology, Board of Governors	1985-88	J. H. Wallace (University of Louisville School of Medicine)
ASM Congressional Fellow Nominated/ran for an ASM general elective office	1980-81	B.F. Hammond (University of Pennsylvania School of Dental Medicine)
	1984-85	E. E. Hanna (NIH)
	1986-87	Henry Williams
Served on editorial board of an ASM journal	1968-70	J. M. Jay (for Group III Councilor)
	1978-83	J. H. Wallace (for president)
	1982-87	W. I. Taylor (Appl. Microbiol.)

**Table 2. Landmark events in the history of U.S.-born black microbiologists (a) *continued***

Event	Year	Person(s)
Chaired an ASM division	1983	W. I. Taylor (J. Clin. Microbiol.)
	1983	E. E. Hanna (Infect. Immun.)
	1985	E. E. Hanna (Division E)
ASM division lecturer	1988	J. M. Jay (Division P)
Member of Institute of Medicine	1991	R. W. Bennet (Division P)
Bacterium named	1985	J. M. Jay (Division P)
Member of ASM Council	1980-82, 1991-93	Harold Amos (Harvard University)
	1980-82	W. I. Taylor ( <i>Enterobacter taylorae</i> )
	1991-93	J. M. Jay
Institution with largest number of Ph.D. alumni	-	J. H. Jackson
		Brenda W. McCurdy
		Ohio State University (at least 11)

a. Additions or corrections are welcomed by the first author

b. The earliest ASM ledger pages are for 1921, and Hinton's annual dues of \$5.00 are entered on the same ledger page as two later ASM presidents-J. Howard Brown (1931) and Karl Meyer (1935). We thank Jeff Karr of the ASM Archives for this and the next item in this table.

c. See text.

editorial boards, membership on the ASM Council and service as division chairs. A number of blacks served and continue to serve on various committees and as officers of their local ASM branches.

## SUGGESTED READING

**Carter, W.A.** 1973. *Shaw's universe-a monument to educational innovation*. National Publishing Co., Rockville, Md.

**Hayden, R. C., and J. Harris.** 1976. *Nine black American doctors*. Addison-Wesley, Reading, Mass.  
**Hinton, W. A.** 1936. *Syphilis and its treatment*. Macmillan Co., New York.

**Mueller, J. H., and J. Hinton.** 1941. *A protein-free medium for primary isolation of the gonococcus and meningococcus*. Proc. Soc. Exp. Biol. Med. 48:330-333.

**Patterson, F. D., H. L. Wilcke, C. Murray, and E. W. Henderson.** 1932. *So-called range paralysis of the chicken*. J. Am. Vet. Med. Assoc. 34:747-767.

**Poindexter, H. A.** 1973. *My world of reality*. Bala-mp Publishing, Detroit.