Brief History of the Howard University Department of Microbiology

Bacteriology was taught at Howard Medical School beginning in 1892, given departmental status in 1910, and broadened to microbiology in 1958

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The beginnings of the Howard University Department of Microbiology, a unit within the College of Medicine, trace to November 1866 when members of the First Congregational Society met in Washington, D.C., to develop a religious seminary for training black ministers. That idea quickly expanded to include educational, legal, agricultural, and medical components and the chartering of the University by an act of Congress in 1867.

General Oliver Otis Howard, a key founder of Howard University and a noted Civil War hero, was also Commissioner of the Bureau of Refugees, Freedmen, and Abandoned Lands, commonly referred to as the Freedmen’s Bureau. This authority enabled him to ensure that the Howard Medical Department would have access to Freedmen’s Hospital, later Howard University Hospital, for training medical students. The development of the Bacteriology Program, forerunner of the Microbiology Department, was and continues to be intricately linked to the medical school.

Howard University was established following the Civil War to train freed men and women, providing educational opportunities and health care services to the nearly 4 million freed slaves and 250,000 blacks who had been born free and who, otherwise, would have been neglected by the majority population. Since its beginning, Howard Medical School has been hailed as a national treasure with an undeniable legacy of producing highly qualified and compassionate African American physicians and other health care professionals.

Bacteriology Program Established in 1892

Although the Microbiology Department did not initiate M.S. and Ph.D. programs until 1969 and 1976, respectively, bacteriology was introduced into the medical school curriculum during 1892–1893. The first bacteriology course was taught by W. W. Alleger, who wrote that the first practical work in bacteriology at Howard began October 1893 in a small laboratory adjoining the histological laboratory. Histology, pathology, microscopy, and hygiene instruction were already in place as early as 1872.

In 1893, Alleger was an active member of the American Microscopical Society and his name appears on the cover of its Proceedings. His subsequent abstracts from that journal indicate that he was actively engaged in bacteriological research. During this time, bacteriology was developing as an academic discipline. For example, the Society of American Bacteriologists (SAB), the predecessor of ASM, was formed in 1899. Alleger wrote about the new bacteriology laboratory being “moved to more commodious

SUMMARY

➤ Howard University, which Congress established in 1867 for the training of freed men and women following the Civil War, added bacteriology to its medical school curriculum in 1892.
➤ Bacteriology, which received departmental status at Howard University in 1910, began seeking and then appointing its first African American faculty members soon thereafter.
➤ Hildrus Poindexter, the first M.D./Ph.D. and the first trained in bacteriology, arrived at Howard in 1931 and greatly influenced the department during the next two decades.
➤ Ruth Moore, who joined the department at Howard in 1933 is considered the first African American to complete a traditional Ph.D. bacteriology program; she later recommended and received approval for its name change to Department of Microbiology in 1958.
➤ During the modern era, Howard continues to develop and refine its research and teaching as well as its M.S. and Ph.D. programs in microbiology.
quarters” when Howard remodeled its medical college in 1895. He described a renovated lab that exhibited many of the same features still used in modern microbiology labs, and he emphasized that all he had proposed had been captured. However, though the existence of an 1870 bacteriology laboratory (Fig. 1) has been documented, whether it preceded the 1895 laboratory that Alleger describes is questionable. In fact, upon close scrutiny, it may likely be the same laboratory (Fig. 2) that Lamb captured in 1900. By 1886, Alleger’s title was Professor of Bacteriology and Pathological Histology, Director of Pathological Laboratory, and Bacteriologist to Freedmen’s Hospital.

**Bacteriology Department Established, Later Reorganized**

Bacteriology received departmental status in 1910, when Marcus W. Lyon was named chair and professor. Other department chairs during 1916–1922 included Roy D. Adams, Eugene R. Whitmore, and Edgar S. Keener.

As early as 1905 Paul Bartsch, a founder of the Ecological Society of America (ESA) in 1917, began a series of lectures that formed the basis for courses in parasitology. From 1905 through 1907, William C. McNeil served as assistant in bacteriology and pathology and, in 1908, Charles H. Bowker was appointed associate. Curiously, the 1912–1913 University Catalogue lists Bowker as Professor of Gynecology.

In 1923, Algernon B. Jackson, the first African American to receive an M.D. from Jefferson Medical College in Philadelphia, was appointed department head of the then-reorganized Department of Bacteriology, Preventive Medicine, and Public Health (BPMPH). When Jackson received his M.D. in 1901, he was denied internships because of his
race and, instead, set up a private practice in Philadelphia. As his practice and reputation grew, he was appointed assistant surgeon at the Polyclinic Hospital and also cofounded Mercy Hospital to serve African Americans in Philadelphia. In 1917, Jackson became the first African American Fellow of the American College of Physicians. In his studies and publications, Jackson focused on the health of the Negro, health disparities, and the role of prevention in promoting a clean bill of health (CBH) degree.

Prior to Jackson’s arrival, Caucasians taught bacteriology, microscopy, and histology at Howard. Accordingly, and in 1924, both Lyon and Whitmore (both Caucasians) were dues-paying members of SAB, and Lyon’s membership continued through 1941. Previously, Johnson-Thompson and Jay (1997) described racial practices that prevented African Americans from participating in Society meetings, during the early years. The first African American to register for an SAB meeting is Ruth Moore in 1937. However, the earliest records of the Society show that William Hinton, MD, an African American and for whom the ASM Hinton Award, established in 1998, is named, paid dues in 1919. At the time, it appears that his identity as an African American wasn’t widely known and he never attended an ASM meeting.

Under Jackson’s leadership, the department hired Hildrus Poindexter and Merton Anderson, both African Americans. Poindexter received his M.D. from Harvard (1929), a Ph.D. in parasitology from Columbia University (1932), and an MSPH in Public Health jointly from Columbia and the University of Puerto Rico (1937). Though Howard was poised to appoint Poindexter when he received his M.D., the school encouraged him and other new M.D.s to further their training. Thus, Poindexter deferred joining the Howard Department of BPMPH until 1931.

Poindexter was the first M.D./Ph.D. in the department and the first trained in bacteriology. All previous faculty members were M.D.s only. Meanwhile, Anderson, who received his M.S. from the University of Minnesota, took leave from Howard to complete his M.D. at Meharry Medical College in 1941. Following a short stint in private practice in Camden, N.J., he was eventually promoted to associate professor in the Department.
of Pathology and Director of Clinical Laboratories at Howard. Yet, he continued to teach bacteriology and appeared on the SAB roster as early as 1939.

**Bacteriology at Howard Flourishes under Poindexter**

Poindexter’s research interests included parasitology, immunology, rural sanitation, venereal disease control, preventive medicine, and tropical medicine. “In those early days of the 1930s, we were encouraged to experiment to our hearts’ content,” he wrote in his memoir, *Twenty Outstanding Features and Periods in the Life of Hildrus Poindexter*. “I made my own Frei antigens and complements, a variety of protozoa media, and vaccines.” His comments suggest that the university administration backed his efforts even though resources were limited during those post-Depression years.

Poindexter’s many professional contributions to Howard, the nation, and the world were numerous and are detailed in his autobiography along with the many accolades and honors that he received. Also detailed are the many racial barriers that he confronted, but overcame. He published widely and, according to his autobiography, possessed considerable data that remained unpublished. In 1942, he joined the U.S. Army Medical Corps, and saw service in the Southwest Pacific as an epidemiologist and specialist in malaria and other tropical disease. He was awarded four major battle stars and the rank of Lieutenant Colonel.

Following the war, Poindexter returned to Howard before joining the U.S. Public Health Service (USPHS) in 1946, for which he served as Chief Health and Sanitation Administrator in Monrovia, Liberia, and later in a similar capacity in Vietnam, Surinam, Libya, and elsewhere. As Senior Surgeon in the U.S. Public Health Service (USPHS), Poindexter traveled widely, working and conferring with many international groups. He retired from Howard University in 1949, but later returned as a part-time professor after 30 years with the USPHS. Poindexter summarized his tenure at Howard as a “productive period of departmental reorganization, research development, and publication, finally reaching 117 publications in 1980.”

During Poindexter’s absence, Paul Cornely, who joined the department in 1934, served as acting head from 1945–1947. Cornely’s expertise was public health, and his contributions were significant in the area of health disparities. In 1947, Cornely was appointed medical director of Freedmen’s Hospital. Several decades later in 1970, he became the first African American president of the American Public Health Association, which each year issues an award in his honor.

**Under Moore, the Department Splits, Changes Its Name**

Ruth Moore joined the department at Howard in 1933 after completing her Ph.D. in bacteriology at Ohio State University, where she studied *Mycobacterium tuberculosis* for her dissertation research. Although Poindexter received his Ph.D., in 1932, Moore is considered the first African American to enter and complete a traditional Ph.D. bacteriology program. Moore’s contributions include her role in teaching hundreds of medical and dental students who went on to serve the medical needs of the African American community. She was primarily responsible for organizing the laboratory work for the medical and dental courses and for planning courses for nurses and dental hygienists. Later, Moore served as acting and then full chair (1947–1958) of the Howard Bacteriology Department.

In 1958, the Department was split into the Department of Preventive Medicine and Public Health and the Department of Bacteriology. As head of the new Department of Bacteriology, Moore continued her research and played a major role in teaching and administration. During this transition, with diligence and vision and to ensure that the department was aligned with current trends, she recommended and received approval that the department’s name be changed to the Department of Microbiology. Earlier in 1936, Moore was the first African American to register for a meeting of SAB, the predecessor organization that later changed its name to the American Society for Microbiology in 1960, a bit after the Howard department had changed its name.

**Other Notable Microbiology Faculty and Department Chairs**

With interests in parasitology and entomology, Madison Briscoe joined the Howard BPMPH Department in 1941. After earning an M.S. from Columbia University, he taught bacteriology at
Storer College in Harper’s Ferry, W.V., through the 1930s. His interest in parasitology deepened during World War II when he commanded the 16th Malaria Survey Detachment in Liberia. His interest in entomology developed when he traveled to Ghana and Senegal during the war and later to Egypt and Central America, studying local illnesses caused by water-borne biting insects and parasites. In these settings, he collected arthropods, venomous snakes, and clinical specimens that he brought to Howard to serve as laboratory specimens for students to examine. Following those travels, Briscoe earned his Ph.D. from Catholic University, with his thesis title being “Some Ecological Aspects of Liberia as Interpreted from the Vegetation on Ground and Aerial Photography with Special Reference to the Distribution of Parasites.” He continued his parasitology research at Howard, and was promoted in 1962 to full professor.

The modern era saw more appointments of faculty with Ph.D.s in microbiology, increased funding and publications, and active participation of many department members, including Moore, Briscoe, and Anderson, at ASM meetings. Meanwhile, the department developed and refined its M.S. and Ph.D. programs, under the guidance of successive department chairs, including Charles Buggs (1958–71), Willie Turner (1971–87), George Royal (1987–89), Phillip Roane (1994–95), Georgia Dunston (1995–2005), and Agnes Day (2005–present).

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Author’s Note

This report is a first attempt to collect information from many different sources to provide a composite early history of the Department of Microbiology at Howard University’s College of Medicine. The only other published history is a brief article by Buggs and Moore (1967). Thus, this attempt greatly expands that history, though it does not detail all associated faculty due to the lack of available information. The authors plan a future article that will follow-up with a continuing and more recent history of the Department. An extended history with referenced citations is available online at www.microbemagazine.org.

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Suggested Reading


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