



### The Tuskegee Polio Recognition Project

In 1985, Rotary and its partners made the commitment to eradicate polio from the face of the earth. In that year an average of over 400,000 children were stricken, with crippling effects, with the polio myelitis virus.

From 125 countries in 1985 down to two countries in 2019 with active polio cases and some 100 cases reported, we are "this close" to the eradication of this horrible disease. We can't stop now. We are so close to winning this battle.

With the end in sight for the eradication of polio, we wish to take a moment back in time to rediscover and honor the most important work conducted at Tuskegee University in the treatment and rehabilitation of the polio stricken Black population and the research conducted to fight the disease by Black workers and researchers at Tuskegee.

The Tuskegee Infantile Paralysis Center was the focal point for this treatment and rehabilitation work along with so many dedicated Black physicians and support personnel.

Rotary District 6880 along with supporting local Rotary Clubs have committed to honor and recognize these individuals and facilities by placing a monument in their honor on the grounds of the original Tuskegee Infantile Paralysis Center on the campus of Tuskegee University in Tuskegee, Alabama.

The monument will consist of a life-size bronze statue depicting Dr. John W. Chenault, nurse Warrena A. Turpin and patient young Gordon Stewart. In addition, a large bronze plaque mounted on a granite base recognizing officers of Tuskegee Institute at this time and the Infantile Paralysis Center Medical and Administration Staff.

Funding for this project will come from the many donors who wish to help us honor those in the fight against the dreaded polio disease and honoring one of the few centers that treated the Black community at the time.

We covet your support in this important project.

The leadership team of Rotary District 6880 and the Administration of Tuskegee University is in full support of this project. Additional supporting documents is available upon request.

If you wish to discuss this project in more detail, I can be reached at 334-791-8921 or email at <u>dgmcneal2022@gmail.com</u>

Sincerely, Bruce McNeal

Bruce McNeal District 6880 Governor Elect Tuskegee Polio Recognition Project Chair

## Historical perspective on polio among Blacks

Before going directly into the mass production of HeLa cells on Tuskegee's campus, a brief historical perspective on the University's prior involvement in polio treatment is warranted. Many factors and circumstances came into play to initiate Tuskegee's involvement in the polio vaccine's development. First and foremost, there was the prevalent racist climate found in this country. This attitude was expounded in the Southeast by Jim Crow discriminatory practices that belittled and held back Black people and made their lives more difficult. Compounding this was a ubiquitous belief in the orthopedic realm that Black polio victims were a rarity, with some people even believing that Blacks were immune to the disease. A combination of these factors led to a disregard for the suffering faced by Blacks infected with the polio virus.2 [End Page 5]

For over a decade, Black activists challenged such flawed thinking, and the idea that polio was a Whites-only disease.<sup>2</sup> Dr. John Chenault, the head of Orthopedic Surgery at Tuskegee University's John A. Andrew Memorial Hospital, and the eventual Director of the hospital's Infantile Paralysis Unit was one such activist. Dr. Chenault conducted his own study in Alabama on the occurrence of polio in Blacks, and examined existing data on this subject from a Georgia Survey of Crippled Children. From his research, Dr. Chenault concluded that although the racial incidence of polio among Blacks was somewhat lower than among Whites, the fatalities observed were relatively higher. He found the disease (polio) caused approximately 20% of the crippling cases observed among Blacks. Dr. Chenault's investigation led him to believe that the absence of quality treatment facilities for Blacks played a major role in the number cases witnessed.<sup>3,4</sup>

In 1936, a polio epidemic swept through the Southern region of the United States, severely crippling children, both Black and White. This outbreak further exposed the challenges that Black polio patients faced when seeking or receiving medical care. The discriminatory practices of the time, especially in the South, left most Black patients with the disease perpetually searching for suitable treatment facilities.

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A few months before this announcement, the Tuskegee Institute's Andrew Memorial Hospital had opened a small unit for disabled children and hired John Chenault, one of the nation's few Black orthopedic surgeons, as its director. The 12-bed unit was a calculated step in a campaign by institute president Frederick Douglass Patterson and Midian Othello Bousfield, director of the Rosenwald Fund's Division of Negro Health. Buttressed by support from Reverend J.S. Bookens, Mary Bethune, and other Black activists, and building on public interest in Carver's polio work, Patterson and Bousfield were quietly urging O'Connor to consider Tuskegee as the site for a polio center.<u>51</u>

In April 1939, Roosevelt made his first official visit to the Tuskegee Institute. He praised the beauty of the campus, visited the Veterans Hospital and shook hands with patients in wheelchairs, and talked briefly with Carver.52 O'Connor came in May to speak at the institute's commencement ceremonies, where he announced that the National Foundation for Infantile Paralysis would fund the Infantile Paralysis Center.53 The 3-story redbrick building, designed by Tuskegee architect Louis E. Fry, officially opened in 1941.54 "Like many other institutions under the sponsorship of the National Foundation," O'Connor proclaimed at the dedication, this new center would make "a valuable contribution to the solution of the problem," and headed by the "brilliant young specialist" John Chenault, it was "destined to become a great orthopedic center for the Negro people of the United States."55 But while arguing that polio was "notoriously no respecter of persons," O'Connor simultaneously blamed the plight of "twisted, distorted and disabled children and adults" on the ignorance of Black parents who did not "know when, and how, and where" to secure "expert medical care" and who had not "abandon[ed] the superstitions and the traditions of an uninformed past."<u>56</u>

The center quickly became a symbol of Black progress. Its national prominence enabled the staff to confront the theory of polio's racial susceptibility and to make visible the neglect of disabled patients of color. In the *Journal of the National Medical Association*, Chenault directly addressed the susceptibility argument with his own analysis of evidence from Alabama and Georgia. Harmon's work, he argued, had capably summarized previous epidemiological knowledge, but new evidence showed that Black patients' unequal access to care and their physicians' inadequate professional training had skewed the statistical reports, leaving "many features" of polio's epidemiology "still debatable."<u>57</u>

Meanwhile at the National Foundation for Infantile Paralysis, O'Connor hired university administrator Charles Hudson Bynum to direct the foundation's new interracial activities division. <u>58</u> In *Negro Digest*, Bynum reminded readers that the National Foundation provided funding "on the same basis that polio strikes—regardless of race, color or creed" and that there was "no evidence of any racial susceptibility to the disease." <u>59</u> In the *New York Times*, Bynum claimed that March of Dimes funding enabled hospitals nationwide to treat Black polio patients and Black physicians, nurses, and physical therapists to train at not only **Tuskegee** but also Black

hospitals in Nashville, Tenn; Durham, NC; and Chicago, Ill. Training courses for polio emergency volunteers were now also open to Black women.<u>60</u>

Integration occurred more fitfully, but by the late 1940s, the fear that race discrimination at home could damage America's Cold War prestige abroad meant that moderate civil rights measures could potentially "make credible the government's argument about race and democracy."<u>61</u> In 1944 when the March of Dimes funded a non-segregated polio hospital during a particularly fierce polio epidemic in Hickory, NC, a Black Baltimore, Md, newspaper pointedly noted that if disease is color blind, "there is cause to wonder why they can't do the same thing the year round."<u>62</u> National foundation executives began to argue that their funding was contributing to a gradual breakdown in discrimination, including "notable reversals of admission policies of medical schools, associations, and hospitals."<u>63</u> A turning point came in September 1945 when Bynum announced at the annual meeting of National Medical Association's board of trustees that Black polio patients were now being treated at Warm Springs.<u>64</u>

On the popular front, March of Dimes organizers began to encourage local chapters to integrate, arguing that "accurate statistics" now showed that "the disease attacked all races." A few Black boys and girls were chosen for local, regional, and national campaigns.<u>65</u> These slow changes in public relations and professional training did not resolve questions of access, however. Polio survivor Wilma Rudolph, future Olympic track star who won 3 gold medals in 1960, later recalled traveling 50 miles in a segregated bus with her mother from her home in Clarksville, Tenn, to be treated at Meharry's polio clinic in Nashville.<u>66</u>

## A NEW VISIBILITY

With the opening of the Tuskegee Infantile Paralysis Center and the prominent support of the nation's largest disease philanthropy, Black leaders had a platform to talk in general about race and medicine, health care access, and the training of professionals. March of Dimes money shored up Tuskegee's financial troubles, and by 1948 O'Connor had become president of the institute's board of trustees. In November 1950, to commemorate the center's 10th anniversary, 300 people came to hear speeches by O'Connor, Chenault, Bynum, and Mrs Bettye Steele Turner, the head of Tuskegee's March of Dimes chapter.<u>67</u> With a flourish of Cold War rhetoric O'Connor declared that "we must continue to broaden the field of opportunity to make places for our best brains, our most capable hands, our most dynamic personalities, whether they be Negro or white," for "as a nation, we cannot continue to squander the abilities of our people without lessening our capacity for world leadership."<u>68</u> Highly visible to the audience was the impressive transformation that March of Dimes support had made in the renovation and expansion of institute buildings, including a new nursing school, nurses' residence, and out-patient department.<u>69</u>

George Draper's arguments about susceptibility, though, did not vanish. In a 1951 story reported as "Polio Strikes Negroes 1st in Louisiana," a White physician speaking for the March of Dimes called a Shreveport, La, epidemic unusual because "usually polio strikes blonde, blue-eyed persons at a far greater rate." <u>70</u> Leading scientists, however, found the differential susceptibility theory less convincing. In 1946 Harry Weaver, newly appointed as director of research at the National Foundation, discovered this when he wrote to virologist Thomas Francis asking about research on race and polio: "I have been under the impression that most people believed that there was less poliomyelitis among Negroes than Whites." No, Francis told Weaver, "the incidence by race ... was essentially the same"; poor statistical collection had previously skewed the statistics and "there has been a tendency in the past not to seek out colored cases as well as White."<u>71</u>

When Francis later directed the massive clinical trial of the Salk polio vaccine funded by March of Dimes, Black children were made part of the research, and Black medical leaders, including Chenault and Matthew Walker, president of the National Medical Association, were invited to attend the historic announcement ceremony at the University of Michigan. During the 1954

vaccine trial, Black activists praised the unusual integration of Black and White professionals as "white nurses assisted Negro physicians in administering the vaccine" and the way that "public health officials, many of whom had never taken notice of Negro children in the community[,] supervised the tests in person." Black scientists and technicians at Tuskegee's Carver Research Foundation produced the HeLa cells used for evaluating the vaccine.72 After the results were announced, Bynum, known in the Black press as "Mr Polio," boasted that the results were a "triumph of racial cooperation."73

Even before the national decline in polio cases, the Tuskegee Center began to represent an outdated symbol of medical accommodations. By the mid-1950s many Black health professionals were no longer content to work with White business leaders to support separatist hospitals through what medical historian Preston Reynolds has called "wellestablished patterns of civility."<u>76</u> The new civil rights movement pervaded medicine, as physicians, nurses, and other activists began to work for "the death of Jim Crow."<u>77</u> During a 1957 March of Dimes campaign, gospel singer Mahalia Jackson refused to perform in a segregated hall and reminded local organizers of the March of Dimes' national policy, "which is dedicated to all people, regardless of race." She was not, she explained, "urging my people to turn their backs on the drive against polio. I know what sickness is. I think race hatred is a sickness too."<u>78</u> Amid the slow desegregation of hospitals across the South, the Tuskegee Center lost its regional distinctiveness, and in 1975 it closed its doors.<u>79</u>

#### TUSKEGEE INSTITUTE HOSPITAL AND NURSE TRAINING SCHOOL

(Renamed John A. Andrew Memorial Hospital in 1912) Tuskegee, Alabama Founded in 1892 as a medical facility for students and faculty at Tuskegee Institute. By 1900 hospital facilities were extended to the community. Composed of two stories with an annex, which allowed space for 45 patients. Moved to a new building in 1913 and name changed to the John A. Andrew Memorial Hospital with male and female wards, surgical and isolation wards, convalescing rooms, obstetrical wards, diet kitchen on each floor, operating rooms, anesthetizing, sterilizing, and recovery rooms, a children's ward, five private rooms, emergency room, classrooms, and dining room. The hospital received a "Grade A" rating from the American College of Surgeons and was approved by the Council on Medical Education and Hospitals of the American Medical Association. A member of the American Hospital Association. By 1961 bed capacity had increased to 175. 4

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#### Establishment of the Tuskegee Infantile Paralysis Center

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In 1938, polio's most famous victim, President Franklin Delano Roosevelt, founded the National Foundation for Infantile Paralysis (NFIP) to raise funding to specifically aid in the treatment and cure of polio. The NFIP's mandate was to increase the research and education on polio throughout the world through the identification of the etiology and mode of transmission of the disease, and the development of treatment vaccines. One of its many fund-raising activities was the nationwide Annual Presidential Ball, an event supported by both Blacks and Whites throughout the country. As was customary during that time period, separate balls were held for Black and White patrons, although all contributions received were pooled into a central fund. It was from these collected funds that the extravagantly equipped and staffed Warm Springs Foundation in Georgia was established for the treatment of White polio patients only. However once the predicament of polio in the Black community was clearly articulated, an allout campaign was initiated to bring the racial disparity in funding of polio treatment squarely to the attention of the NFIP. This pressure was politically uncomfortable for President Roosevelt, since the President himself periodically visited the Warm Springs facilities for treatment.<sup>2</sup>

In this context, the burden of doing something for Black victims of polio fell squarely upon the shoulders of Mr. Basil O'Connor, president of the NFIP.<sup>2.4</sup> O'Connor became a key liaison between the NFIP, Tuskegee University, and the John A. Andrew Memorial Hospital, which would eventually lead to the formation of the Tuskegee Infantile Paralysis Center in January 1940. The Tuskegee Infantile Paralysis Center, staffed by outstanding Black orthopedic surgeons, was created for the double purpose of treating Black children with polio and serving as a research and training base for Black health care professionals in the ongoing battle against this disease.<sup>4</sup>

While polio patients from across the Southeast were being ushered through essential treatment and rehabilitation programs at the Tuskegee Infantile Paralysis Center, across campus Tuskegee scientists were conducting outstanding research in the Carver Research Foundation building. This building, partially constructed from the life savings of Dr. Carver, was also home to the labs of two of Tuskegee's premier scientists, Drs. Russell Brown and James Henderson. Few, including these two scientists, had the premonition that this building would be transformed into a state-of-

# Selection of Tuskegee University as a cell culture" factory site

One may ask: what were the probable circumstances that led to the selection of Tuskegee University as the site for a HeLa Project? Since the NFIP desired that the HeLa cell project would conform to established cell culture protocols, its powers-to-be felt that such standards could be best achieved on university campuses, where the personnel would be knowledgeable and experienced in research. Because of the outstanding research conducted by Drs. Brown and Henderson in cell biology, Tuskegee University fit the criteria set by the NFIP. It probably did not hurt Tuskegee's chances of landing a HeLa Project site that Dr. H.M. Weaver, Director of Research for the NFIP, was well acquainted with the ongoing work taking place in Tuskegee's Carver Research Foundation. In addition, for many years, Mr. Basil O'Connor, Founder and Chief Administrator of the NFIP, was Chairman of the Board of Trustees of Tuskegee University. O'Connor's regular presence on Tuskegee's campus acquainted him personally with the school's exceptional faculty and research facilities.45 Still others believe that Mr. Charles Bynum, the Director of "Negro Activities" at the NFIP was the main reason that Tuskegee was selected as a HeLa Project site. It is believed that Bynum, the first Black foundation executive in the United States, preferred Tuskegee because it would provide much-needed funding for jobs and training of Carver Research Foundation fellows and scientists, as well as funding of other research being conducted.<sup>4</sup> Needless to say that all of these factors contributed in part to O'Connor's selection of, and confidence in Tuskegee to do an exceptional job on the HeLa Project.

In October 1952, Dr. Weaver met with Dr. Russell Brown, Director of the Carver Research Foundation, to discuss the feasibility of a central HeLa production laboratory at Tuskegee University. During these discussions, it was mutually agreed that the project would be awarded to Tuskegee and supported by a grant from the NFIP. Dr. Brown was to serve as principal investigator (PI), with Dr. Henderson as co-PI. Weaver next arranged for both Brown and Henderson to spend three months and six weeks, respectively in an intensive cell and tissue culture training program at the University of Minnesota under the supervision of Drs. Jerome T. Syverton and William F. Scherer. During this training period, Brown and Henderson formulated the equipment, personnel, and facilities infrastructure needed for developing a preeminent cell culture laboratory. All of their requests and specifications were carried out to the letter.<sup>4</sup>

In April 1953, Dr. Scherer provided Tuskegee with the original seed culture of the HeLa cell line, which he obtained from the original propagator of the cell line, Dr. George Gey from Johns Hopkins University Hospital. Drs. Brown and Henderson trained all of their personnel in intricacies of cell and tissue culture. The Tuskegee team was given a goal of developing the capacity to ship a minimum of 10,000 cultures per week to various laboratories. In their original experimentation to identify the best protocol to ensure the successful transportation of viable HeLa cells, the Brown/Henderson team made important findings that revolutionized the process of commercialized cell culture. In the area of laboratory cell and tissue culture material, the HeLa Project was responsible for the routine use of rubber-lined screw-capped bottles and tubes. They also saw the need for specialization in the jobs of their personnel. This was seen in the hiring of what they referred to as an "expediter," whose sole job was to be responsible for the procurement of necessary supplies. Drs. Brown and Henderson likewise instituted quality control measures through the employment of customary microscopic analyses to check cell morphology and the condition of culture monolayers before shipping.<sup>§</sup>

I had never known that the Tuskegee Institue had a role in the war on Polio and development of the Salk Vaccine. The HeLa cells were used in wide spread testing of the vaccine to make sure it was immunogenic. Since HeLa were able to be infected and killed by the Polio virus, they became a convenient means of testing the vaccine. The vaccine was administered to volunteers and six weeks later if that patient's serum protected HeLa cells from Polio infection that alloquot of vaccine and its administration technique was immunogenic.

The only thing I knew of the Tuskegee Institute was its role in medicine's most horrific racial crime, the studying of 400 African American men with syphillis without telling them they were infected or offering treatment. This deception lasted for forty years. From <u>Wikipedia</u>:

So finding out that Tuskegee had a role in Polio was interesting, but discovering that the technicians and scientists in Tuskegee were all African American and that the Tuskegee institute had won the contract to produce the cultures in a form of proto-affirmative action blew my mind. An affirmative action program was happening at the same place, and at the same time, as one of the darkest moments in the mistreatment of African Americans.