

Wayne and Sara Finley: Alabama's Trailblazers in Medical Cytogenetics

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Wayne House Finley, MD, PhD (April 7, 1927) and Sara Crews Finley, MD (February 26, 1930 – February 20, 2013) were medical trailblazers and co-founders in 1962 of the Laboratory of Medical Genetics, the first such center in the Southeastern U.S. It was at that center that much genetic research was conducted over the years and patients and their families from throughout the Southeast were counseled regarding information on current offspring and the likelihood of genetic problems in future offspring.

Wayne was born at Goodwater, Alabama to Byron Bruce and Lucille House Finley. He was educated in the schools of Coosa County and graduated from Bibb Graves High School in Millerville, Alabama. He attended Jacksonville State University, where, after having his education plans interrupted (1945-46) by service in the U.S. Army Infantry's occupation forces in Germany, he received his B.S. in 1947. Following his active service in the military, he entered the University of Alabama, where he received the M.A. in 1950 and met Sara Crews, whom he married on July 6, 1952. From 1951-53, he was on active duty as an officer on the Staff and Faculty of the U.S. Army Chemical Corps. Despite these military interruptions, he completed the M.S. degree in Biochemistry (1955), and the PhD in Biochemistry (1958), both at the University of Alabama's Birmingham campus.

Shortly thereafter, he was admitted to the MD program at the Medical College of Alabama, later known as the University of Alabama School of Medicine (UASOM), which was located at what was to become the University of Alabama at Birmingham (UAB). He received the M.D. in 1960. Throughout his educational years, he remained in the military service, serving from 1946-74 as a member of the U.S. Army Reserve. Following the awarding of the M.D. degree, he completed in 1961 an internship in Pediatrics at the Jefferson-Hillman Hospital and Clinics, which was part of the Medical College of Alabama.

Sara was born at Lineville, Alabama to J. B. and Jessie Matthews Crews. She was educated in the public schools of Clay County, at Lineville High School, and at the University of Alabama, where she obtained the B.S. degree in 1951. Immediately after graduation, she was admitted to the M.D. program of the Medical College of Alabama, being one of the earliest women to be admitted to that medical school. She completed the M.D. degree in 1955, served an internship at Lloyd Noland Hospital in Birmingham in 1955-56 and did a National Institutes of Health Fellowship in Pediatrics at the UASOM in 1956-59.

Soon after completing her NIH fellowship in 1959, she and Wayne accepted faculty positions at the UASOM. Shortly thereafter, Dr. Joseph Volker, President of UAB, urged them to apply for National Institutes of Health-sponsored traineeships in medical genetics at the Institute for Medical Genetics at the University of Uppsala, Sweden. With their two young children, they traveled to Sweden and participated for one year in this fruitful and career-directing learning experience. It was there that they studied under Professor Jan Böök, Director of the Institute and an internationally known medical geneticist.

Establishment in 1946 that each person has 46 chromosomes, breakthroughs in the 1950s in the cultivation of human cells, and the demonstration in 1959 of the association between chromosome aberrations and abnormal clinical findings all resulted in the development of medical genetics research and service programs worldwide. Returning to Birmingham and the UASOM in 1962, the Finleys established the first medical genetics program in the southeastern U.S. Recognizing the valuable outcome of this work, the UASOM and the UA School of Dentistry supported this program, which, over the years, was also supported by the National Institutes of Health (Medical Genetics program and, later, its Pediatrics Oncology Group), several state agencies, private foundations, and some families who had a family member who had been treated at the clinic. On the basis of research based partly on UAB Medical Genetics Center data, Blue Cross-Blue Shield increased its reimbursement for medical genetics services, an action that greatly helped patients' families.

Believing that exposure of students early in their careers to a new field of clinical study might be most beneficial, the Finleys guided the development of a regional research, training, and service program for 35 years, and, in the process, trained both medical genetics professionals and physicians who would use medical genetics information to advise their patients and families, thereby preparing 57 PhDs, 1 DrPh, and 35 M.A.s (8 of whom later became MD's).

Elements of the medical genetics program consisted of genetics and genetic counseling clinics and several specialized laboratories for diagnosis of suspected genetic disorders. The laboratories evolved for general and cancer cytogenetics, clinical biochemical genetics, prenatal diagnosis, and clinical molecular and fluorescent *in situ* hybridization studies. Through the efforts of Jerry Thompson, PhD, a laboratory to detect mucopolysaccharidoses was developed, another first in the Southeast. It soon became a national reference lab. Over the years, the Medical Genetics Clinic provided care to thousands of patients and counseled thousands of parents about their child's current genetic problem and the likelihood of a genetic problem in a subsequent child. Initially, these clinics became and continued over the decades to be the busiest in the Southeast.

In addition, as a team and in coordination with their graduate students and employees, the Finleys engaged in genetic-related scientific research resulting in 247 publications. While being heavily involved in clinical services, graduate student training, and medical student education, the Finleys were also involved in the advancement of medical genetics nationally as a field of medical study. In support of that effort, the UAB Medical Genetics Program hosted several meetings: International Seminar on Medical Genetics (1966), National Medical Genetics Meeting (1970), 15th Annual March of Dimes Birth Defects Conference (1982), and the Annual Meeting of the American College of Medical Genetics (1996). Over the years and courtesy of the UAB Medical Genetics program, 103 professionals were sponsored for participation in professional meetings, and 91 professionals came to UAB to present and interact with graduate students in the UAB Medical Genetics program. The medical genetics instruction which UAB medical students received resulted in a large number of referrals over the years from those physicians and other physicians in Alabama and elsewhere in the Southeast.

In addition to their commitment to addressing genetically-related problems in patients, the Finleys participated in numerous local, state, regional, national, and international organizations. In addition, Wayne served as president of the UAB Chapter of Sigma XI, chairman of the

Alabama Healthcare Hall of Fame, the first director of the graduate study program in medical genetics at UAB, chairman of Medical Student Research Day at UAB for 10 years, chairman of the Reynolds Historical Library Associates Steering Committee for 25 years, and chairman of the Carey Phillips Travel Fellowship committee for medical students for 30 years. Over his long career, his honors were extensive and included key honors from his undergraduate institution, the UASOM Medical School, and the Academy of Pediatrics.

Sara's honors were equally noteworthy: the XXXI's 31 Most Outstanding University of Alabama Alumnae Award, Distinguished Alumna Award of the University of Alabama National Alumni Association, Distinguished Alumni Award of the University of Alabama Medical Alumni Association, American Medical Women's Association/National Library of Medicine Legends Award, Phi Beta Kappa, National Outstanding Alumna Award of Zeta Tau Alpha Women's Fraternity, 1989 Top 10 Women in Birmingham, Will Gaines Holmes Award from the Children's Aid Society, and Southern Women's Committee of 50.

In addition to her commitment to genetically-related problems in patients, Sara served for 20 years on the UASOM Admissions Committee and participated in numerous civic and religious activities, being the first woman member of the Rotary Club of Birmingham and a member of its Board of Directors, member of the Board of Directors of Compass Bank, the United Way of Central Alabama, and Girl's Inc. In addition, she was the first woman to serve as President of both the University of Alabama Medical Alumni Association and the Jefferson County Medical Society. She was also a member of the University of Alabama President's Cabinet for more than 10 years.

Recognition that they were indeed a team, resulted in them receiving numerous honors jointly: UAB Distinguished Faculty Lecture Award, Distinguished Service Award, and the Martha Myers Role Model Award (both by the University of Alabama Medical Alumni Association), Samuel Buford Word Award by the Medical Association of the State of Alabama, Gardner Award of the Alabama Academy of Science, Alabama Healthcare Hall of Fame, Brother Bryan Humanitarian Award by the Women's Committee of One Hundred, Birmingham Business Journal's Lifetime Achievement Award, establishment by UAB of the Finley-Compass Bank Conference Center, and establishment by the University of Alabama Board of Trustees of the Wayne H. and Sara Crews Finley Chair in Medical Genetics. A portrait of them is located in the Genetics Conference Center which adjoins the Kaul Genetics Building. Both retired in 1996 as Professor emeriti in 1996.

Additional Reading

Tennant S. McWilliams, New Lights in the Valley: The Emergence of UAB, The University of Alabama Press, Tuscaloosa, 2007), 114, 186, 245, 285, 370, 376.

Who's Who in America, 1974 (Wayne H. Finley, MD, PhD)

Who's Who in America, 1974 (Sara C. Finley, MD)

Alabama Health Care Hall of Fame, 2001 (Wayne H. Finley, MD, PhD & Sara C. Finley, MD) <http://www.healthcarehof.org/honorees01/finley.html>

Journal of Alabama Academy of Science, Vol.89, No. 2, November 2018

Alabama Academy of Science, 2002 (Wayne H. Finley, MD, PhD & Sara C. Finley, MD)
Lifetime Achievement Award, Birmingham Business Journal, October 17, 2003 (Wayne H. Finley, MD, PhD & Sara C. Finley, MD)

Distinguished Faculty Lecturers, University of Alabama at Birmingham, 1983 (Wayne H. Finley, MD, PhD & Sara C. Finley, MD)

Buford Word Award, Medical Association of the State of Alabama, 2003 (Wayne H. Finley, MD, PhD & Sara C. Finley, MD)

Alabama Medical Alumni Bulletin (Wayne H. Finley, PhD, MD)

Bob Shepard, "Sara Finley, Pioneering UAB Geneticist, Dies at 82," UAB News, February 20, 2013. <https://www.uab.edu/medicine/news/latest/item/61-sara-finley-pioneering-UAB-geneticist-dies-at-82>

National Library of Medicine, Local Legends: Celebrating America's Local Women Physicians (Sara Finley, MD)

Distinguished Service Award, Alabama Medical Alumni Association, 2012 (Sara Crews Finley, MD)

<http://www.alabamamedicalalumni.org/clientuploads/documents/2012awardwinnerswebsite.pdf>

"The Passing of Pioneers" (Sara Finley, MD), UAB Medicine, vol. 39, no. 2, Summer 2013.