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*Obituary*  
*Dale David Dykes (1945–1990)*

On July 10, 1990, Dale D. Dykes, a well-known researcher in blood genetics, died at the University Hospital of Denver, Colorado, after suffering a massive heart attack. He had a relatively short but highly productive research career in the areas of biochemical genetics, forensic medicine, and parentage testing.

Dale Dykes was born in San Diego, California, in 1945, but his family moved to Minneapolis, where he received most of his schooling. In 1968 he was awarded a Bachelor of Arts degree in Zoology by the University of Minnesota. After serving in the United States Army, primarily at Fitzsimmons Army Medical Center, Dale Dykes was hired by the Minneapolis War Memorial Blood Center, where he spent 18 years as a research associate. Dale was extremely gifted in the laboratory, as evidenced by his development of numerous electrophoretic techniques and DNA procedures. During his tenure at the Blood Center, Dale developed isoelectric focusing systems for the phosphoglucomutase (PGM1), group-specific component (GC), transferrin (TF), and esterase D (ESD) loci. These methodologies are now widely used in forensic and blood genetic laboratories throughout the world.

During the latter phases of the Tlaxcaltecan project (c. 1973), our paths first crossed. My previous blood genetics collaborators, the Genetic Laboratory of the National Institute of Dental Research (headed by the late Jerry Niswander) was directed to cease its blood genetic activities and to stick to their primary mission—teeth. The Minneapolis Blood Center, under the direction of Herbert Polesky, agreed to collaborate with my research group on the screening of genetic blood markers in populations that were of mutual interest. Dale Dykes was in charge of the research activities of the Center and our research contacts eventually developed into a friendship that spanned 17 years. The collaboration between the Blood Center and the Laboratory of Biological Anthropology (LBA) at the University of Kansas led to the joint publication of 11 articles in an assortment of biological anthropological, genetic, and forensic journals (see Dale Dykes's bibliography).

Dale Dykes was a highly productive researcher during his 18 years at the Minneapolis Blood Center. He published 54 scientific articles and chapters in various professional journals, books, and manuals on electrophoretic methods and their forensic application. He was an integral part of the Tlaxcaltecan, Black Carib, Mennonite, Newfoundland,

Alaskan Eskimo, and Sukhumi baboon research programs initiated by the LBA.

In the spring of 1989 Dale Dykes left the Memorial Blood Center to establish the Alpha-Probe Corporation. However, in June 1989 this corporation merged with Allotype Genetic Testing, Inc., to become the Analytical Genetic Testing Center of Denver. During his short stay in Denver, Dale continued to work on systems of electrophoresis and, in addition, helped to develop an important nonisotopic method of labeling DNA. He was also one of the developers of a salting method of DNA extraction that eliminated the use of many toxic chemicals (such as ice-cold phenol) and opened the door for securing DNA from leukocytes under field conditions. This methodology considerably simplifies field research for human biologists, biological anthropologists, and human geneticists studying DNA variation in populations that are geographically not easily accessible.

In addition to his publications and methodologic breakthroughs, Dale Dykes contributed professionally in other ways. He traveled the world, leading workshops, seminars, and classes in electrophoretic and DNA technology. Thus one of his greatest contributions to science was training a generation of scientists who now apply these state-of-the-art technologies to forensic medicine, population genetics, and biochemical genetics. Dale Dykes helped set up the Paternity Sample Program (PSP) while on the Committee on Parentage Testing.

Dale Dykes was an active member of a number of scientific organizations: the Human Biology Council, the American Academy of Forensic Sciences, the International Society of Forensic Haemogenetics, the Electrophoretic Society, the American Society of Human Genetics, the American Association of Physical Anthropologists, the American Association of Medical Anthropology, and the American Association of Blood Banks. He served as a reviewer for a number of scientific journals. Dale Dykes was an active reviewer for *Human Biology*, and one of his last professional acts was to review an article for the journal. This review was discovered on his desk shortly after his death.

Dale Dykes is survived by his wife, Therese; two teenaged sons, Benjamin and Adam (residing in Denver); his father, John Dykes; a brother, Douglas Dykes; and a sister, Patricia Senyich—all of Minneapolis.

Dale Dykes was a friend and colleague of many of the readers of *Human Biology* and will be sorely missed.

Much of the biographic information and the list of publications was kindly provided by Moses Schanfield, Dale's close friend and associate at the Analytical Genetic Testing Center.

M.H. Crawford  
Editor-in-Chief

**Publications by Dale Dykes**

1975. Erythrocyte enzymes in paternity testing (with H.F. Polesky). In *Paternity Testing*, H.F. Polesky, ed. Chicago, Ill.: American Society of Clinical Pathologists, 54–60.
1975. Serum proteins and erythrocyte enzymes in paternity testing. In *A Seminar on Polymorphisms in Human Blood*. Arlington, Vir.: American Association of Blood Banks, 27–42.
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1979. Gene flow and genetic microdifferentiation of a transplanted Tlaxcaltecan Indian population (with M.H. Crawford, K. Skradski, and H.F. Polesky). *Am. J. Phys. Anthropol.* 50:401–412.
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1981. Transferrin (Tf) subtyping on agarose: A new technique for isoelectric focusing (with H.F. Polesky). *Hum. Genet.* 9:365-366.
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