

Edith R. Peterson Biography

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Biography

A medical researcher specializing in cell cultures, Edith R. Peterson (1914-1992) was the first scientist to grow myelin, the outer covering of nerve cells, in a test tube. Her discovery aided research into multiple sclerosis, muscular dystrophy, and other diseases of the nervous system.

Peterson was born Edith Elizabeth Runne on June 24, 1914, in Brooklyn, New York, to Hermann and Else Helmke Runne. Peterson's father, co-owner of a restaurant and catering establishment, died suddenly in 1920, shortly before he was to take a trip to Germany to join his wife and two daughters, who were visiting relatives. After staying in Germany for the next six years, the family returned to the United States, where Peterson's mother obtained employment designing custom dresses. In 1937 Peterson received a B.S. degree from Barnard College; two years later she earned a master's degree in zoology from Columbia University. In September of 1941 she married Charles Peterson, a commercial artist. The couple had a son, Wesley, in 1952 and a daughter, Rhonda Lea, in 1954.

In the early 1940s Peterson went to work in the laboratory of Margaret Murray at Columbia University. While working there, she was able to grow functional nerve cells using cultures containing chicken embryos. She utilized organotype culture which, unlike other methods of growing cells, involves having cells simulate the actual structure and functions of the organs from which they have been taken. Peterson succeeded in growing the actual nerve cells, brain, and spinal cord of chickens. In doing so she was also able to grow myelin, the insulating sheath surrounding nerve cells--the first time this had been done. This discovery aided research on multiple sclerosis, a disease that involves the degeneration of the myelin in the brain and spinal cord.

In 1966 Peterson left Columbia to work with Dr. Murray Bornstein at the Albert Einstein College of Medicine of Yeshiva University in the Bronx, New York. There she concentrated her studies on muscular dystrophy, a wasting disease affecting skeletal muscles. In addition to her research, she taught her techniques for organotype culture to students from the United States, Asia, and Europe.

Peterson retired in 1990 following a stroke that hindered her ability to use her right hand. Shortly afterward, she and her husband moved to Middletown, New York. Peterson died of a stroke on August 15, 1992.