

Obituary Prof. Dr. Seymour S. Cohen

Enzo Agostinelli¹

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Internationally recognized experts on polyamines have highlighted, in the special issue *Biochemical and Pathophysiological Properties of Polyamines* published by Springer on *Amino Acids*, edited by Enzo Agostinelli, a number of aspects associated with the physiological roles of polyamines. The issue is a tribute and dedicated to the memory of Prof. Seymour S. Cohen, a prominent scientist in polyamine research.

Dr. Seymour S. Cohen passed away on December 30, 2018 at the age of 101 years. Dr. Cohen was born in New York on April 30, 1917, received his B.S. degree from the City College of New York (1936), and Ph.D. degree in biochemistry from Columbia University (1941). He worked at the Rockefeller Institute in Princeton for a year before moving to the Department of Pediatrics, University of Pennsylvania, and Children's Hospital in Philadelphia in 1943. During World War II, he worked with the US Army in the development of an improved typhus vaccine that was an important aid to US troops in Italy and North Africa. He was named the first Chair of the Department of Therapeutic Research and the Hartzell Professor in Therapeutic Research in 1963. In 1970, he moved to the University of Colorado Medical School in Denver as a Professor of Microbiology. Five years later, he was named the Albert Schweitzer distinguished professor at the State University of New York at Stony Brook. He and his wife, the late sculptor Elaine Pear Cohen, originally came to Woods Hole in 1948, to spend summers at the Marine Biological Laboratory, and then lived year round in Woods Hole since 1986 after they had retired from the Cape. Dr. Cohen taught in the summer physiology course, conducted research and served as a member of the MBL Corporation and Board of Trustees. He remained in Woods Hole after his wife's death

in 1995. He later moved to the School of Medicine of the University of Pennsylvania,

Dr. Cohen discovered how viral infection spreads within cells by linking a radioactive isotope to a virus and observing the pattern of infection within cells in 1947. He worked extensively on the biochemistry of bacteriophages and growth patterns of plants. In 1951, he was awarded the Eli Lilly Prize for his work on virus and cells, which was followed by the American Society for Nutrition's Mead Johnson Award in 1952. In 1955, the American Association for the Advancement of Science (AAAS) awarded Dr. Cohen the Newcomb Cleveland Award for the best paper presented at the association's annual meeting. The paper entitled "Molecular Bases of the Parasitism of Some Bacterial Viruses" showed that molecules of mutant organisms (viruses and bacteria) can be distinguished chemically. In 1957, he was named as the first Lifetime Professor of the American Cancer Society for his role in the development of new compounds to fight cancer. One of these compounds, 5-fluorouracil, is still used as a primary drug to inhibit skin cancer. In 1963, Dr. Cohen was elected to the American Academy of Arts and Sciences and to the US National Academy of Sciences (NAS) in 1967. In 1968, he published the book, *Virus-Induced Enzymes*. His later work focused on the importance of polyamines, a subject matter about which he wrote two books.

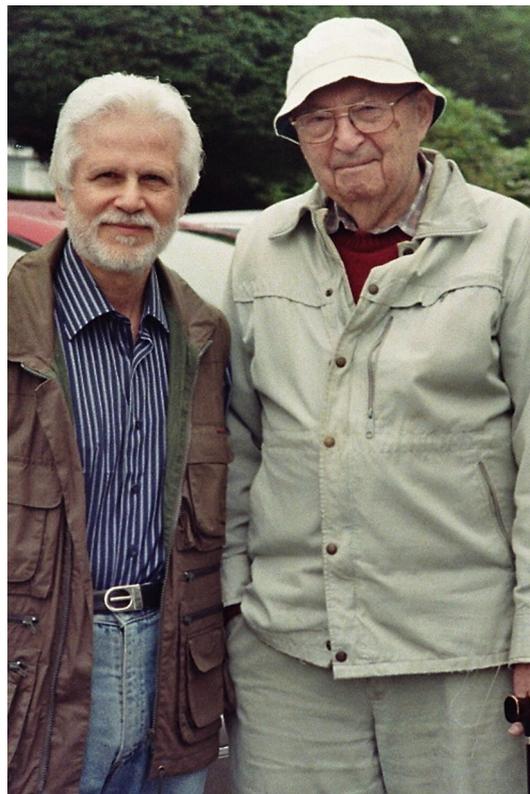
Dr. Cohen's world-wide recognition brought him invitations to speak in 15 countries: Great Britain, Sweden, Norway, Finland, Russia, Israel, Japan, Taiwan, Kenya, Mexico, Colombia, Germany, Italy, Spain, and Switzerland. He made many visits to Paris, where he worked at both the Institut Pasteur, as one of the first Guggenheim Scholars, and the Institut de Biochimie Physico Chimique. He was nominated several times for the Nobel Prize and is, therefore, included among the group of people who hold the "Forty-First Chair", (scientists deemed worthy candidates for the Nobel Prize by the Nobel committee). He received the French Society of Biological Chemists Medal in 1964, the Borden Award of the American Association of Medical Colleges in 1967, an honorary degree from

✉ Enzo Agostinelli
enzo.agostinelli@uniroma1.it

¹ Department of Biochemical Sciences, 'A. Rossi Fanelli', SAPIENZA University of Rome, Piazzale Aldo Moro, 5, 00185 Rome, Italia

the Université Catholique de Louvain in 1972, the Pasano Award in 1974, the Karl August Forster Prize of the Mainz Academy of Science and Letters in 1978, a medal from the Alumni Foundation of the City College of New York in 1978, and an honorary degree from the University of Kuopio (Finland) in 1982. He was named an honorary citizen of Montpellier, France in 1984, in recognition of his scientific achievements.

Dr. Cohen's scientific papers, including more than 250 publications, are held in the Seymour S. Cohen Papers, 1938–1990, at the Library of the American Philosophical Society in Philadelphia. The book "A Guide to The Polyamines" edited in 1998 represents the Biblia in the polyamine field. On January 2nd, 2019, I was informed that Professor Seymour S. Cohen had passed away. It became a very dark period in my life because of the fact that, for many years, Seymour had been one of my best pen friends both via letter and by e-mail. We discussed many common topics in person during my visits to Woods Hole as Seymour's guest (photo). One of his favorite topics, as a member of a NAS (US National Academy of Sciences) panel, was to explore the possible involvement of polyamines in the elimination of two major world diseases of humans, hepatitis B and hepatitis C. Seymour was many things, including a Nobel Prize nominee, but first of all he was an excellent friend. Seymour will be missed! His precious work will remain an important guide for his many scientific colleagues as well as for the new generation *polyamigos* who will venture into the polyamine field.



Short legend: "Woods Hole 2011. Enzo and Seymour"

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