

# Samuel Leeson Leonard

*November 26, 1905 — November 11, 2007*

Samuel Leeson Leonard, zoologist, passed away on November 11, 2007 at the age of 101. His research had a major impact on our understanding of reproductive endocrinology and contributed to the development of in vitro fertilization and hormonally based contraception. Dr. Leonard was born in Elizabeth, New Jersey and graduated from Rutgers University. He earned his doctorate in Zoology from the University of Wisconsin in 1931. He joined the Cornell Faculty in 1941 as an Associate Professor after teaching at Union College and Rutgers. In 1949, he was promoted to full Professor and retired in the 1970s. After his retirement, he was a regular visitor to campus as an Emeritus faculty member.

As a doctoral student at the University of Wisconsin, Dr. Leonard made the pioneering discovery that the pituitary gland produces two distinct hormones rather than a single hormone as had been previously thought. The new hormones were named follicle stimulating hormone (FSH), and luteinizing hormone (LH). These hormones function to stimulate ovaries and testes to produce sex hormones such as estrogen, progesterone, and testosterone, and thus are important for fertility. Dr. Leonard's discovery ultimately led to the use of FSH and/or LH to increase egg production in cattle, and later as an important element of infertility treatments in people.

In the 1930s, Dr. Leonard carried out a series of experiments to investigate the function of estrogen in rats and rabbits, discovering that applications of estrogen could prevent ovulation. This early finding laid the groundwork for use of hormone treatments as effective contraceptives.

Dr. Leonard's work also provided important insight into the role of hormones in behavior. In 1939, he showed that although female canaries normally do not sing, they could be induced to sing if treated with the male sex hormone, testosterone, while they matured. This discovery highlighted the direct role that hormones could have in promoting secondary sexual characteristics.

Dr. Leonard took to heart the teaching and mentoring of graduate students and of the ~9000 undergraduates to whom he lectured in zoology. Throughout his long life, he remained in contact with his former mentees, staying current with their work and taking great pride in their accomplishments.

Dr. Leonard was predeceased by his wife, Olive, and by their son David Leonard. He is survived by his daughter, Patricia Hoard, by four grandchildren, and by one great-grandchild.