



RECIPIENT OF THE 2002 PIONEER AWARD

ROBERT H. FOOTE, BS, MS, PhD.

By

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Dr. Bob Foote received his BS from University of Connecticut in 1943, his MS and Ph.D. from Cornell University, Ithaca, NY in 1947 and 1950, respectively, in the fields of animal breeding, animal physiology, animal nutrition and biochemical genetics. From 1943 to 1945 Bob served as an army Captain in the famous Japanese-American 442nd RTC, which engaged in very serious fighting in Italy. Bob was severely wounded in combat, and his unit was part of the most decorated battalion in WWII. In 1950 Bob was appointed assistant professor of Animal Physiology, Department of Animal Science, Cornell University, Ithaca, NY. In 1963 he was promoted to full professor, a position he held until 1980 when he became the Jacob Gould Schurman professor until his retirement in 1993. He is currently Jacob Gould Schurman professor emeritus at Cornell University and still can be found in his office nearly every day. From 1958 to 1959, Bob was awarded a Fullbright Scholarship, which was spent at University of Copenhagen, Denmark. Bob is a member of numerous international professional organisations including the IETS, and he has received a number of distinguished awards, of which the Japanese Society for Promotion of Science and the L.E. Casida awards must be mentioned.

Dr. Foote's scientific activities over the past 50 years are extremely impressive and his name appears on more than 500 publications. His initial research concentrated on semen production and artificial insemination in cattle, pigs, horses and dogs. A wide range of topics were investigated in the 1950s and 1960s including semen production capacity, spermatogenesis, semen evaluation, semen dilution, cryopreservation of semen, and fertility following AI (1, 2, 3, 4, 5, 6, 7). Bob's interest in semen and semen evaluation still prevails, as seen in a publication published in 1997, after his retirement (8). His extensive work in this field has been highly important for dairy and beef cattle artificial insemination all over the world.

Bob's embryo work originated in the mid-60s with publications on oogenesis in rabbits, superovulation of rabbits and on both in vivo and in vitro embryo developmental capacities of rabbit eggs (9, 10, 11, 12, 13, 14, 15). Studies on low temperature storage and energy metabolism of rabbit ova resumed in the early and mid-70s (16, 17). His very well known publications on superovulation of calves and in vitro development of calf ova appeared in the late 60s and early 70s and publications on this subject continued into the 80s and 90s (18, 19, 20, 21, 22, 23, 24, 25). Bob addressed the endocrinology of superovulation (26, 27) and these original observations have formed the basis for subsequent studies not only on superovulation and embryo transfer but also for the in vitro embryo production era. His interest in sexing was expressed in an early publication from 1972 (28) and reiterated in 1982 (29, 30, 31). A number of important publications on milk progesterone determination and dairy cattle fertility were published in the late 70s (32, 33, 34). Work on the acrosome reaction (35) from 1987 should also be mentioned, as it relates to later in vitro embryo-production work. Also worth mentioning is his work on the importance of donor-recipient-embryo interactions (36); various essential aspects of in vitro production of cattle embryos have been addressed in several publications (37, 38, 39). From 1990 to the present, a number of publications have been produced in Bob's laboratory on micromanipulation, including bisection, nuclear transfer and ICSI (40, 41, 42, 43).

In addition to his own contribution to the international literature, Bob has trained an impressive number of graduate students, many of whom have made their own significant contributions to basic and applied aspects of embryo-technology. Dr. Robert H. Foote is a worthy recipient of the 2002 IETS pioneer award through his contribution to AI, superovulation, embryo-transfer, in vitro embryo production and cloning of embryos.

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