

Recipient of the 2004 Pioneer Award: Benjamin G. Brackett, BSA, MS, PhD, DVM

Benjamin G. Brackett is a native of Athens, Georgia, USA, where he attended the University of Georgia. He received undergraduate (BSA), graduate (MS and PhD) and veterinary (DVM) degrees from that institute all within an eight-year period (1958–1966). He then joined L. Mastroianni's laboratory at the University of Pennsylvania where he continued his pioneering research into sperm capacitation and *in vitro* fertilisation. He subsequently joined the faculty of the University of Pennsylvania and remained there until he accepted the position of Professor and Head of the Department of Physiology and Pharmacology, University of Georgia College of Veterinary Medicine in 1983. He remained at the University of Georgia until his retirement in 2002. Over the years, he has mentored numerous undergraduates, graduates (12 MS and 8 PhD), postdoctoral fellows and visiting scientists (over 30) from all over the world, many of whom are members of the IETS and have gone on to be leaders in their fields.

Dr Brackett has made many outstanding contributions to the field of gamete biology since he began his initial studies on sperm capacitation and *in vitro* fertilisation in the late 1960s and early 1970s (Brackett and Williams 1965, 1968; Seitz *et al.* 1971; Oliphant and Brackett 1973). His early contributions include the development of conditions compatible with *in vitro* fertilisation of rabbit ova (Brackett and Williams 1968). These studies lead directly to the development of IVF in Rhesus monkeys and man (Seitz *et al.* 1971; Mastroianni and Brackett 1972; Batta and Brackett 1974). He switched to the bovine system following the issuance of a moratorium on human fertilisation research that resulted in the cessation of funding by the NIH. This redirection resulted in the production of the world's first calf produced by *in vitro* fertilisation (Brackett *et al.* 1982). Just a few of his other accomplishments include the first demonstration that mammalian spermatozoa can take up and transport heterologous DNA into oocytes (Brackett *et al.* 1971), the development of chemically defined culture media for maturation, fertilisation, and embryo culture (Zuelke and Brackett 1990), and further improvements in conditions for embryo production and cryopreservation for both goat and bovine oocytes and embryos (Fayrer-Hosken *et al.* 1987; Zuelke and Brackett 1993; Keskinetepe *et al.* 1995; Keskinetepe and Brackett 1996; Luvoni *et al.* 1996; Keskinetepe *et al.* 1997; Hernandez-Fonseca *et al.* 2002). Furthermore, his laboratory has studied the role of glutathione synthetase in early mouse development using a transgenic approach (Rzucidlo and Brackett 2000). Overall, research from his laboratory has resulted in over 200 publications.

In 1983, with two physician partners, he established Reproductive Biology Associates, an *in vitro* fertilisation

clinic located in Atlanta, Georgia. He served as the President and Chairman of the Board of Reproductive Biology Associates, Inc., until 1988. He has served as a consultant for the Office of Technology Assessment of the United States and the National Institute of Health as an expert witness on IVF before the USA Congress, and as a member of the Technical Advisory Committee for the Contraceptive Research and Development Program supported by the USA State Department.

Dr Brackett has been an active member of the IETS since the society's early days in the mid 1970s. He was the Program Chair in 1983 and was also elected to the Board of Governors. He served as the President of the IETS in 1984 and Past President in 1985. In recognition of his significant contributions to the scientific community and of the direct application of his work in the medical, veterinary and educational communities, Dr Benjamin G. Brackett is a worthy recipient of the 2004 IETS Pioneer Award.

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