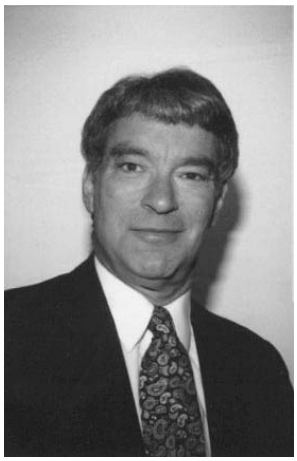
SSR Research Award. *(Sponsored by the Society for the Study of Reproduction.)* Dr. Norman Hecht



is the 2000 winner of the SSR Research Award. Dr. Hecht received a Ph.D. in microbiology from the University of Illinois in 1967. After postdoctoral studies at the University of California, San Diego, Dr. Hecht accepted a position as Assistant Professor of Biology at Tufts University. Over the next 21 years Dr. Hecht carried out studies on the molecular biology of spermatogenesis at Tufts. In 1997, he accepted his current position as the William Shippen, Jr., Professor of Human Reproduction at the University of Pennsylvania. Dr. Hecht's work has centered on the expression of genes in haploid male germ cells. In the late 1970s and early 1980s Dr. Hecht presented evidence for gene expression in round spermatids. This work was very controversial for many years because the dogma at the time was that haploid cells, and especially spermatids, were transcriptionally inactive. Dr. Hecht's research continued to provide unequivocal evidence for extensive transcriptional activity in haploid cells with investigations of germ cell-specific actins, tubulins, and protamines. Post-meiotic gene transcription is now an accepted concept that is under investigation in a number of laboratories. Dr. Hecht's research was instrumental in developing this entire field of study.

In the last 6 years Dr. Hecht has focused on understanding the regulation of post-meiotic expression of genes, and the mechanisms by which mRNA is stored before it is translated in spermatids. One of the RNA binding proteins (TB-RBP) that he has described has been identified as a homolog of Translin, a previously characterized brain protein associated with chromosomal translocations. Dr. Hecht's current evidence indicates that TB-RBP is involved in mRNA translational repression, movement, and localization. His studies on the regulation of post-meiotic expression of genes have led to characterizations of the promoter regions of the mouse protamine and transition protein genes, the superoxide dismutase gene, and the testis-specific cytochrome c gene. His current work in this area is focused on the down regulation of the cytochrome c (somatic) gene and the coordinated up-regulation of the cytochrome c (testis) gene. He has shown that an intermediate, non-functional, cytochrome c (somatic) transcript with an extended UTR may be an important intermediate in this coordinated process. He is also pursuing studies on a superoxide dismutase RNA binding protein that regulates translation of this mRNA.

Dr. Hecht's research is highly creative, requiring insight that transcends previously held views. He has developed new approaches and techniques associated with nearly every phase of this research. He is greatly respected as a leader and innovator in this field. Besides the research productivity, his leadership in this field is exemplified by continual funding from NIH, the large number of invited seminars and research presentations he has given, the number of students and postdoctoral fellows he has trained, and the extensive number of collaborators that have sought his help.