SSR New Investigator Award *(sustaining support from the Virendra B. Mahesh New Investigator Endowment Fund).* This award recognizes an active, regular member of the Society for outstanding research completed and published within 10 years after receiving the Ph.D. or other equivalent professional degree. In considering nominees for this award, the Awards Committee will consider the originality of the research, the significance and impact of the research in reproductive sciences or allied fields, and the degree to which the nominee's research was independent of that of a mentor. The recipient of the 2007 SSR New Investigator Award is Dr. Derek J. McLean.

Dr. Derek McLean is a young investigator who has contributed significantly to the field of reproductive biology; he exemplifies a researcher who is committed to advancing the field and to the training of future scientists.

Dr. Derek McLean received his Ph.D. in reproductive physiology from Oregon State University in 1997. He then did a short postdoctoral study with Dr. Erwin Goldberg at Northwestern University and, subsequently, an extensive postdoctoral program in the laboratory of Dr. Michael Griswold at Washington State University. In 2003, Dr. McLean was appointed an Assistant Professor/Assistant Scientist in the Department of Animal Sciences at Washington State University.

Dr. McLean's research since 2003 has focused on the characterization of bovine spermatogenesis using bovine ectopic xenografts. The primary method for studying spermatogenic stem cells has involved germ cell transplantation techniques for rodents. Germ cell transplantation in species such as the bovine has been difficult because of the architecture of the seminiferous tubules and interstitium as well as the requirement to eliminate endogenous spermatogenesis. Dr. McLean has shown that spermatogenesis occurs from testicular stem cells in ectopic xenografts of bovine testicular tissue. He has examined the actions of growth factors, grafting period and donor age, and overall gene expression in this system. This work has set the stage for a viable procedure to study bovine testicular stem cells and for the establishment of in vitro bovine spermatogenesis. Dr. McLean's studies have potentially important applications for the cattle industry and constitute original, conceptual breakthroughs in the field of spermatogenesis.

Dr. McLean also uses spermatogonial stem cell culture, germ cell transplantation, and analysis of gene expression using oligonucleotide array technology in his studies. He was among the first to apply these techniques to the study of the bovine testis. The application of these state-of-the-art techniques has led to 12 publications since his appointment as an independent investigator. He currently has an R03 award from NIH for the study of the actions of vitamin A on spermatogonial stem cells. In addition, he is a co-investigator on an R01 grant from NICHD dealing with spermatogonial transplantation. His role in this project is completely independent and involves the long-term culture of murine stem cells and the analysis of their viability by transplantation techniques. Even as a young investigator, Dr. McLean has an outstanding reputation for his research excellence. This reputation is apparent in the large number of invited presentations he has given and the demand for his services on graduate committees.