

Title of Dissertation Goes Here

Your Name

Dissertation under the direction of Professor E. Michael Smith

Abstracts should be a minimum of 250 words and a maximum of 350 words. Please follow this format exactly. What follows is some sample extra text. The complex inheritance pattern of this disorder has led researchers to focus on genetic effects other than the putative disease mutation. Mouse models provide a controlled background for these types of studies. *Sox10* is an essential gene for the development of the enteric nervous system (ENS). *Sox10^{Dom}* mice on a mixed genetic background exhibit the variable aganglionosis seen in HSCR cases. Congenic lines of *Sox10^{Dom}* mice on distinct inbred genetic backgrounds, C57BL/6J (B6) and C3HeB/FeJ (C3Fe), differ in penetrance and extent of aganglionosis. A linkage screen for modifiers of *Sox10^{Dom}* aganglionosis was undertaken in a large B6 X C3Fe F₂ population. Several potential modifier regions were identified, with the most significant located on chromosome five (*Sox10m3*). The most relevant candidate gene in this region was *Phox2B*, an essential factor in autonomic neurogenesis.

Approved _____ Date _____

E. Michael Smith, Ph.D.