

**An Analysis of Homeobox Genes in the Earthworm,
Eisenia andrei (Annelida: Oligochaeta)**

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The oligochaeta, *Eisenia andrei*, was surveyed for homeobox-containing genes using the method of polymerase chain reaction and subsequent sequence determination. Twenty distinct homeobox-containing gene fragments were identified. Ten of fragments are classified with Hox-type homeobox classes and other fragments show orthology with *caudal*, *Prh*, *Xlox*, *Lox* and *engrailed* homeobox classes. Detection of *Abd-B* type candidate genes, *Eahox19* and *Eahox20*, resemble to the result of same oligochaeta, *Stylaria lacustris* (*ST-5*; Snow and Buss, 1994) as well as leeches (*Lox21*; Irvine and Martindale, 1996). These studies suggest that this type gene exists in annelid lineage. Because of failure to discover of *Abd-B* homolog gene in polychaeta (Irvine *et al.*, 1997), this type gene would have been preserved in oligochaeta and leeches, whereas it has been lost in polychaeta during separation of these phyla.