

The genesis and evolution of homeobox gene clusters

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Abstract

Once called the 'Rosetta stone' of developmental biology, the homeobox continues to fascinate both evolutionary and developmental biologists. The birth of the homeotic, or Hox, gene cluster, and its subsequent evolution, has been crucial in mediating the major transitions in metazoan body plan. Comparative genomics studies indicate that the more recently discovered ParaHox and NK clusters were linked to the Hox cluster early in evolution, and that together they constituted a 'megacluster' of homeobox genes that conspicuously contributed to body-plan evolution.

<http://www.nature.com/nrg/journal/v6/n12/full/nrg1723.html>