Abstracts (December - March 2001-2002)

The abstracts of the recent research information appeared on the Vol.1 No.11-Vol.2 No.3 of"AIST Today"are introduced and classified by research area.

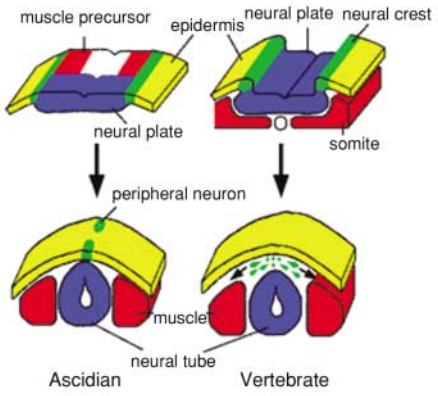
For inquiry about the full article, please contact the author directly.

Life Science & Technology

Ascidian as a Model for Neural Crest Development

Yukio OHTSUKA
Neuroscience Research Institute
e-mail:
y-ootsuka@aist.go.jp
AIST Today Vol. 1, No. 11 (2001) 8

The vertebrate neural crest cells give rise to a variety of cell types including peripheral neurons, endocrine cells, and pigment cells. Although understanding of the neural crest development is important for tissue engineering and treatment of human disorders, little is known about its molecular mechanism. By using gelsolin, an actin-binding protein as a molecular marker, we have recently found that the formation of the peripheral neurons of ascidian larva is similar to that of vertebrates in a fundamental aspect. Thus, by adopting ascidians, a primitive chordate as a model system, it will provide new insights to understanding the molecular basis for neural crest development.



Development of peripheral neurons in ascidian and vertebrate