



Library Indian Institute of Science Education and Research Mohali



DSpace@IISERMohali (/jspui/)

/ Publications of IISER Mohali (/jspui/handle/123456789/4)

/ Research Articles (/jspui/handle/123456789/9)

Please use this identifier to cite or link to this item: <http://hdl.handle.net/123456789/3045>

Title:	Active Hematopoietic Hubs in Drosophila Adults Generate Hemocytes and Contribute to Immune Response
Authors:	Ghosh, Saikat (/jspui/browse?type=author&value=Ghosh%2C+Saikat) Singh, Arashdeep (/jspui/browse?type=author&value=Singh%2C+Arashdeep) Mandal, S. (/jspui/browse?type=author&value=Mandal%2C+S.) Mandal, L. (/jspui/browse?type=author&value=Mandal%2C+L.)
Keywords:	Drosophila biphasic hematopoiesis mesoderm
Issue Date:	2015
Publisher:	Cell Press
Citation:	Developmental Cell, 33 (4) pp. 478-488
Abstract:	Blood cell development in Drosophila shares significant similarities with vertebrate. The conservation ranges from biphasic mode of hematopoiesis to signaling molecules crucial for progenitor cell formation, maintenance, and differentiation. Primitive hematopoiesis in Drosophila ensues in embryonic head mesoderm, whereas definitive hematopoiesis happens in larval hematopoietic organ, the lymph gland. This organ, with the onset of pupation, ruptures to release hemocytes into circulation. It is believed that the adult lacks a hematopoietic organ and survives on the contribution of both embryonic and larval hematopoiesis. However, our studies revealed a surge of blood cell development in the dorsal abdominal hemocyte clusters of adult fly. These active hematopoietic hubs are capable of blood cell specification and can respond to bacterial challenges. The presence of progenitors and differentiated hemocytes embedded in a functional network of Laminin A and Pericardin within this hematopoietic hub projects it as a simple version of the vertebrate bone marrow.
URI:	https://www.sciencedirect.com/science/article/pii/S1534580715001823 (https://www.sciencedirect.com/science/article/pii/S1534580715001823) http://hdl.handle.net/123456789/3045 (http://hdl.handle.net/123456789/3045)
Appears in Collections:	Research Articles (/jspui/handle/123456789/9)

Files in This Item:

File	Description	Size	Format
Need to add pdf.odt (/jspui/bitstream/123456789/3045/1/Need%20to%20add%20pdf.odt)		8.63 kB	OpenDocument Text

[View/Open \(/jspui/bitstream/123456789/3045/1/Need%20to%20add%20pdf.odt\)](#)

[Show full item record \(/jspui/handle/123456789/3045?mode=full\)](#)

[Statistics \(/jspui/handle/123456789/3045/statistics\)](#)

Items in DSpace are protected by copyright, with all rights reserved, unless otherwise indicated.