Title:	Unravelling the origin of the lymph gland posterior lobes in Drosophila melanogaster
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Keywords:	Drosophila melanogaster posterior lobes lymph gland Unravelling
Issue Date:	Apr-2022
Publisher:	IISER Mohali
Abstract:	Lymph gland, the multilobed larval hematopoietic organ in Drosophila melanogaster, has been studied extensively for the past two decades owing to the similarity in blood cell development between vertebrates and Drosophila. Nevertheless, when most studies focused predominantly on the larger primary lobes, the posterior lobes were left unexplored with respect to their role in hematopoiesis. Recent studies show that posterior lobes respond to immune challenges and contribute to post-larval hematopoiesis in Drosophila. However, little do we know about the origin, and the developmental delay observed in these lobes. In this study, we intend to understand the origin of these posterior lobes by identifying potential cell types in late embryonic stages that can give rise to the posterior lobe cells. We identified that the precursors of the posterior lobes arise from the Ultrabithorax domain in late embryo. We found that the precursors are not restricted to the embryonic stage, instead arise throughout larval development in Drosophila. In future, it will be quite exciting to see how these previously characterized cell types are able to show a bi-potential nature and contribute to the development of posterior lobes in the lymph gland.
URI:	http://hdl.handle.net/123456789/4196
Appears in Collections:	MS-17