



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/123456789/4490>

Title:	Relish plays a dynamic role in the niche to modulate Drosophila blood progenitor homeostasis in development and infection
Authors:	Ramesh, Parvathy (/jspui/browse?type=author&value=Ramesh%2C+Parvathy) Dey, Nidhi Sharma (/jspui/browse?type=author&value=Dey%2C+Nidhi+Sharma) Kanwal, Aditya (/jspui/browse?type=author&value=Kanwal%2C+Aditya) Mandal, Sudip (/jspui/browse?type=author&value=Mandal%2C+Sudip) Mandal, Lolitika (/jspui/browse?type=author&value=Mandal%2C+Lolitika)
Keywords:	Relish dynamic niche modulate Drosophila progenitor
Issue Date:	2021
Publisher:	Elife
Citation:	Elife.
Abstract:	Immune challenges demand the gearing up of basal hematopoiesis to combat infection. Little is known about how during development, this switch is achieved to take care of the insult. Here, we show that the hematopoietic niche of the larval lymph gland of Drosophila senses immune challenge and reacts to it quickly through the nuclear factor- κ B (NF- κ B), Relish, a component of the immune deficiency (Imd) pathway. During development, Relish is triggered by ecdysone signaling in the hematopoietic niche to maintain the blood progenitors. Loss of Relish causes an alteration in the cytoskeletal architecture of the niche cells in a Jun Kinase-dependent manner, resulting in the trapping of Hh implicated in progenitor maintenance. Notably, during infection, downregulation of Relish in the niche tilts the maintenance program toward precocious differentiation, thereby bolstering the cellular arm of the immune response.
Description:	Only IISER Mohali authors are available in the record.
URI:	https://doi.org/10.7554/elife.67158 (https://doi.org/10.7554/elife.67158) http://hdl.handle.net/123456789/4490 (http://hdl.handle.net/123456789/4490)
Appears in	Research Articles (/jspui/handle/123456789/9)
Collections:	

Files in This Item:

File	Description	Size	Format	
Need To Add...Full Text_ PDF.pdf (/jspui/bitstream/123456789/4490/1/Need%20To%20Add%e2%80%a6Full%20Text_ PDF..pdf)	Only IISER Mohali authors are available in the record.	15.36 kB	Adobe PDF	View/Open (/jspui/)

Show full item record (</jspui/handle/123456789/4490?mode=full>)

 (</jspui/handle/123456789/4490/statistics>)

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