



# Library Indian Institute of Science Education and Research Mohali



DSpace@IISERMohali / Thesis & Dissertation / Master of Science / MS-18

Please use this identifier to cite or link to this item: <http://hdl.handle.net/123456789/5720>

Title:	The Role of PRC1 and PRC2 in Zebrafish Fin Regeneration
Authors:	<a href="#">Verma, Adeti</a>
Keywords:	Zebrafish Fin Regeneration
Issue Date:	31-Jul-2023
Publisher:	IISER Mohali
Abstract:	<p>In the realm of regenerative capabilities, humans exhibit limited ability, whereas lower vertebrates such as zebrafish and axolotls possess remarkable regenerative powers, being able to regenerate not only their fins and appendages but also internal body organs like the heart, kidney, spine, and brain. This striking contrast in regenerative potential has sparked immense interest in understanding the mechanisms underlying regeneration in lower vertebrates, with the aspiration of unlocking possibilities for human regenerative medicine. The significance of this field of research lies in the prospect of comprehending regeneration processes and subsequently applying this knowledge to facilitate regenerative therapies in humans. If we can uncover the intricacies of regeneration in lower vertebrates like zebrafish, it may pave the way for innovative approaches to regenerating damaged or lost tissues in humans, addressing various medical challenges. So as a small contribution to this field of research, in this study, we focus on exploring the role of Polycomb group (PcG) proteins, specifically PRC1 and PRC2, as vital epigenetic factors contributing to regeneration and related cellular processes and pathways. By investigating their involvement, we aim to shed light on the underlying molecular mechanisms that drive the regenerative potential in zebrafish. This research involves the use of specific inhibitors targeting PRC1 (PRT4165) and PRC2 (GSK343) expression, which will allow us to understand their precise roles and functions in the process of fin regeneration. The outcomes of this research are anticipated to hold significant implications for regenerative biology. By unraveling the contributions of PRC1 and PRC2 in zebrafish fin regeneration, the goal is to broaden our knowledge of epigenetic regulation and its impact on regenerative processes, bringing us closer to a future where tissue repair and regeneration become a reality.</p>
Description:	under embargo period
URI:	<a href="http://hdl.handle.net/123456789/5720">http://hdl.handle.net/123456789/5720</a>
Appears in Collections:	<a href="#">MS-18</a>

## Files in This Item:

File	Description	Size	Format	
<a href="#">Under Embargo period.odt</a>	under embargo period	9.72 kB	OpenDocument Text	<a href="#">View/Open</a>

Show full item record



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