



# 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/123456789/1906>

Title:	The claudin-like protein HPO-30 is required to maintain lachrs at the C. Elegans neuromuscular junction
Authors:	Sharma, Pallavi (/jspui/browse?type=author&value=Sharma%2C+Pallavi) Tikiyani, Vina (/jspui/browse?type=author&value=Tikiyani%2C+Vina) Babu, Kavita (/jspui/browse?type=author&value=Babu%2C+Kavita)
Keywords:	AChRs HPO-30 Levamisole Neuromuscular junction
Issue Date:	2018
Publisher:	Society for Neuroscience
Citation:	Journal of Neuroscience, 38(32) pp. 7072-7087
Abstract:	Communications across chemical synapses are primarily mediated by neurotransmitters and their postsynaptic receptors. There are diverse molecular systems to localize and regulate the receptors at the synapse. Here, we identify HPO-30, a member of the claudin superfamily of membrane proteins, as a positive regulator for synaptic localization of levamisole dependent acetylcholine receptors (LACHRs) at the Caenorhabditis elegans neuromuscular junction. The HPO-30 protein localizes at the NMJ and shows genetic and physical association with the LACHR subunits LEV-8, UNC-29 and UNC-38. Using genetic and electrophysiological assays in the hermaphrodite C. elegans we demonstrate that HPO-30 functions through the Neuroligin, NLG-1 at the NMJ to maintain postsynaptic LACHR levels at the synapse. Taken together, this work suggests a novel function for a tight junction protein in maintaining normal receptor levels at the NMJ.
Description:	Only IISERM authors are available in the record.
URI:	<a href="https://www.jneurosci.org/content/early/2018/06/27/JNEUROSCI.3487-17.2018/tab-article-info?versioned=true">https://www.jneurosci.org/content/early/2018/06/27/JNEUROSCI.3487-17.2018/tab-article-info?versioned=true</a> ( <a href="https://www.jneurosci.org/content/early/2018/06/27/JNEUROSCI.3487-17.2018/tab-article-info?versioned=true">https://www.jneurosci.org/content/early/2018/06/27/JNEUROSCI.3487-17.2018/tab-article-info?versioned=true</a> ) <a href="http://hdl.handle.net/123456789/1906">http://hdl.handle.net/123456789/1906</a> ( <a href="http://hdl.handle.net/123456789/1906">http://hdl.handle.net/123456789/1906</a> )
Appears in Collections:	Research Articles (/jspui/handle/123456789/9)

Files in This Item:

File	Description	Size	Format	
Need to add pdf.odt (/jspui/bitstream/123456789/1906/1/Need%20to%20add%20pdf.odt)		8.04 kB	OpenDocument Text	<a href="#">View/Open (/jspui/bitstream/123456789/1906/1/Need%20to%20add%20pdf.odt)</a>

Show full item record (/jspui/handle/123456789/1906?mode=full)

[\(/jspui/handle/123456789/1906/statistics\)](#)

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