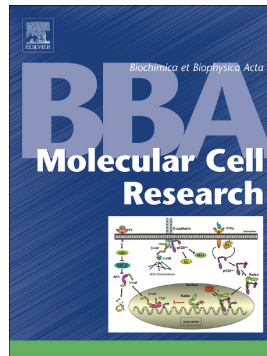


Accepted Manuscript

Two-pore channels and disease

Sandip Patel, Bethan S. Kilpatrick



PII: S0167-4889(18)30088-0
DOI: doi:[10.1016/j.bbamcr.2018.05.004](https://doi.org/10.1016/j.bbamcr.2018.05.004)
Reference: BBAMCR 18279

To appear in:

Received date: 2 April 2018

Accepted date: 3 May 2018

Please cite this article as: Sandip Patel, Bethan S. Kilpatrick , Two-pore channels and disease. The address for the corresponding author was captured as affiliation for all authors. Please check if appropriate. Bbamcr(2018), doi:[10.1016/j.bbamcr.2018.05.004](https://doi.org/10.1016/j.bbamcr.2018.05.004)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Two-pore channels and disease.**Sandip Patel* and Bethan S. Kilpatrick**

Department of Cell and Developmental Biology,

University College London,

Gower Street, London WC1E 6BT

*corresponding author: patel.s@ucl.ac.uk

Two-pore channels (TPCs) are Ca^{2+} -permeable endo-lysosomal ion channels subject to multi-modal regulation. They mediate their physiological effects through releasing Ca^{2+} from acidic organelles in response to cues such as the second messenger, NAADP. Here, we review emerging evidence linking TPCs to disease. We discuss how perturbing both local and global Ca^{2+} changes mediated by TPCs through chemical and/or molecular manipulations can induce or reverse disease phenotypes. We cover evidence from models of Parkinson's disease, non-alcoholic fatty liver disease, Ebola infection, cancer, cardiac dysfunction and diabetes. A need for more drugs targeting TPCs is identified.

Key words: TPCN1;TPCN2;NAADP; Ca^{2+} ;lysosomes

Download English Version:

<https://daneshyari.com/en/article/10156737>

Download Persian Version:

<https://daneshyari.com/article/10156737>

[Daneshyari.com](https://daneshyari.com)