CORRECTION Open Access

## Correction: Differential effects of mutations of POPDC proteins on heteromeric interaction and membrane trafficking

Alexander H. Swan<sup>1,2</sup>, Roland F. R. Schindler<sup>1,9</sup>, Marco Savarese<sup>3</sup>, Isabelle Mayer<sup>1</sup>, Susanne Rinné<sup>4</sup>, Felix Bleser<sup>4</sup>, Anne Schänzer<sup>5</sup>, Andreas Hahn<sup>6</sup>, Mario Sabatelli<sup>7</sup>, Francesco Perna<sup>8</sup>, Kathryn Chapman<sup>9</sup>, Mark Pfuhl<sup>10</sup>, Alan C. Spivey<sup>2</sup>, Niels Decher<sup>4</sup>, Bjarne Udd<sup>11</sup>, Giorgio Tasca<sup>12,13</sup>, and Thomas Brand<sup>1,14</sup>

## Correction: Acta Neuropathologica Communications (2023) 11:4

https://doi.org/10.1186/s40478-022-01501-w

Following publication of the original article [1], the authors identified errors in the affiliations assignment and in Fig. 3.

The affiliation of the author Niels Decher was incorrect. The correct affiliation is affiliation 4 (Institute for Physiology and Pathophysiology, Vegetative Physiology, Philipps-University of Marburg, Marburg, Germany),

instead of affiliation 5 (Institute of Neuropathology, Justus Liebig University Giessen, Giessen, Germany).

For Fig. 3, the authors reported that a duplicated version of Fig. 2 was published as Fig. 3.

The corrected affiliation assignment and Fig. 3 have been provided in this Correction article and the original article [1] has been updated

Published online: 11 July 2023

The online version of the original article can be found at https://doi.org/10. 1186/s40478-022-01501-w.

Thomas Brand

t.brand@imperial.ac.uk



© The Author(s) 2023. **Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material, If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit http://creativecommons.org/licenses/by/4.0/. The Creative Commons Public Domain Dedication waiver (http://creativecommons.org/publicdomain/zero/1.0/) applies to the data made available in this article, unless otherwise stated in a credit line to the data.

<sup>\*</sup>Correspondence:

<sup>&</sup>lt;sup>1</sup> National Heart and Lung Institute (NHLI), Imperial College London, London, UK

<sup>&</sup>lt;sup>2</sup> Department of Chemistry, Imperial College London, London, UK

<sup>&</sup>lt;sup>3</sup> Department of Medical Genetics, Medicum, University of Helsinki, Helsinki, Finland

<sup>&</sup>lt;sup>4</sup> Institute for Physiology and Pathophysiology, Vegetative Physiology, Philipps-University of Marburg, Marburg, Germany

<sup>&</sup>lt;sup>5</sup> Institute of Neuropathology, Justus Liebig University Giessen, Giessen, Germany

<sup>&</sup>lt;sup>6</sup> Department of Child Neurology, Justus Liebig University Giessen, Giessen, Germany

 $<sup>^{7}</sup>$  Department of Neurology, Universitá Cattolica del Sacro Cuore, Rome, Italy

<sup>&</sup>lt;sup>8</sup> Dipartimento Di Scienze Cardiovascolari, Fondazione Policlinico Universitario A. Gemelli IRCCS, Rome, Italy

<sup>&</sup>lt;sup>9</sup> Assay Biology, Domainex Ltd, Cambridge CB10 1XL, UK

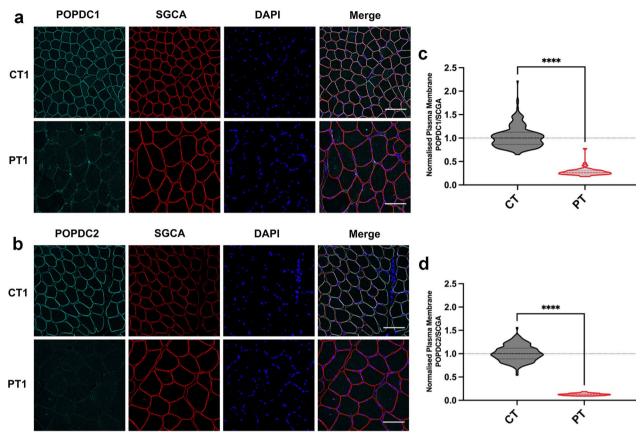
<sup>&</sup>lt;sup>10</sup> School of Cardiovascular Medicine and Sciences and Randall Centre, King's College London, London, UK

<sup>11</sup> Folkhälsan Research Center, University of Helsinki, Helsinki, Finland

<sup>&</sup>lt;sup>12</sup> Unità Operativa Complessa di Neurologia, Fondazione Policlinico Universitario A. Gemelli IRCCS, Rome, Italy

<sup>&</sup>lt;sup>13</sup> Present Address: John Walton Muscular Dystrophy Research Centre, Newcastle University and Newcastle Hospitals NHS Foundation Trusts , Newcastle Upon Tyne, UK

 $<sup>^{14}</sup>$  Imperial Centre of Translational and Experimental Medicine, Du Cane Road, London W120NN, UK



**Fig. 3** The expression of POPDC1 and POPDC2 is greatly reduced at the sarcolemma of skeletal muscle fibers expressing *POPDC1* p.Q153X. **a** and **b** Transverse sections of skeletal muscle biopsies from a patient (PT) carrying the *POPDC1* p.Q153X variant in homozygosity and a matched control (CT) were stained for **a** POPDC1 or **b** POPDC2, along with SGCA as a sarcolemma marker. Scale bar: 100 µm. **c** and **d** The expression levels of **c** POPDC1 and **d** POPDC2 in the sarcolemma normalized to SGCA, were quantified in individual fibers. The number of sections (sec), images (img) and fibers (fib) analyzed per group are as follows: CT: POPDC1—1 s, 4 img, 238 fib; POPDC2—1 s, 4 img, 163 fib. PT: POPDC1—1 s, 3 img, 65 fib; POPDC2—1 s, 3 img, 70 fib. The median POPDC/SGCA-level in each control biopsy was set to 1. Dashed lines indicate the normalized median and interquartile range. Data were analyzed using Mann–Whitney test; \*\*\*\*\*p < 0.0001

## Reference

 Swan S et al (2023) Differential effects of mutations of POPDC proteins on heteromeric interaction and membrane trafficking. Acta Neuropathol Commun 11(4). https://doi.org/10.1186/s40478-022-01501-w

## **Publisher's Note**

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.