

Correction

Open Access



Correction: Energetic metabolism in cardiomyocytes: molecular basis of heart ischemia and arrhythmogenesis

María Sofía Martínez¹, Andrés García¹, Eliana Luzardo¹, Mervin Chávez-Castillo¹, Luis Carlos Olivar¹, Juan Salazar¹, Manuel Velasco², Joselyn Joanna Rojas Quintero^{1,3}, Valmore Bermúdez^{1,4}

¹Endocrine and Metabolic Diseases Research Center, School of Medicine, University of Zulia, Maracaibo 4001, Venezuela.

²Department of Pharmacology, "JM Vargas" Medical School, Central University of Venezuela, Caracas 1051, Venezuela.

³Division of Pulmonary and Critical Care Medicine, Brigham and Women's Hospital, Harvard Medical School, Boston, MA 02115, USA.

⁴Advanced Frontier Studies Research Group (ALEF), Simón Bolívar University, Cúcuta 54003, Colombia.

Correspondence to: Dr. María Sofía Martínez, Endocrine and Metabolic Diseases Research Center, School of Medicine, University of Zulia, Maracaibo 4001, Venezuela. E-mail: mmartinez@fmed.luz.edu.ve

How to cite this article: Martínez MS, García A, Luzardo E, Chávez-Castillo M, Olivar LC, Salazar J, Velasco M, Quintero JJR, Bermúdez V. Correction: Energetic metabolism in cardiomyocytes: molecular basis of heart ischemia and arrhythmogenesis. *Vessel Plus* 2018;2:32. <http://dx.doi.org/10.20517/2574-1209.2018.68>

Received: 26 Sep 2018 **First Decision:** 26 Sep 2018 **Revised:** 11 Oct 2018 **Accepted:** 11 Oct 2018 **Published:** 23 Oct 2018

Science Editor: Mario F. L. Gaudino **Copy Editor:** Cui Yu **Production Editor:** Huan-Liang Wu

The [original article](#) was published on 28 Dec 2017.

After the publication of the article named “Energetic metabolism in cardiomyocytes: molecular basis of heart ischemia and arrhythmogenesis”^[1], we found that the article by Stanley *et al.*^[2] was unwisely omitted from the fourth paragraph of the section titled “Fuel for myocardial contraction: the role of macromolecules”. This reference should be cited in the first, third and fourth sentences of this section, namely “The metabolic machinery of the heart utilizes oxygen up to 80%-90% of the maximum capacity of the electron transport chain; however, at a resting state, the heart operates at only 15%-25% of its maximum oxidative capacity”, “Cardiomyocytes show an elevated rate of ATP hydrolysis, which is strongly linked to oxidative phosphorylation. Because under non-ischemic conditions, over 95% of these cells’ ATP is produced in this process, it is indispensable in order to assure the full replenishment of the cardiomyocytes’ ATP content every 10 s, and thus maintain constant concentrations of this molecule, even under conditions of increased frequency or force of contractions” and “Of the total energy produced by ATP hydrolysis, approximately 60%-70% serves as fuel for contraction, while the remaining 30%-40% is used by the Ca²⁺ ATPase pumps in the smooth sarcoplasmic reticulum and other ion pumps”.

REFERENCES

1. Martínez MS, García A, Luzardo E, Chávez-Castillo M, Olivar LC, Salazar J, Velasco M, Quintero JJR, Bermúdez V. Energetic metabolism in cardiomyocytes: molecular basis of heart ischemia and arrhythmogenesis. *Vessel Plus* 2017;1:230-41.
2. Stanley WC, Recchia FA, Lopaschuk GD. Myocardial substrate metabolism in the normal and failing heart. *Physiol Rev* 2005;85:1093-129.



© The Author(s) 2018. **Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, sharing, adaptation, distribution and reproduction in any medium or format, for any purpose, even commercially, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made.

