Corrigendum: *In situ* Pumping Rate of 20 Marine Demosponges Is a Function of Osculum Area

Teresa Maria Morganti[1,2,3]*, Marta Ribes[2], Raz Moskovich[4,5], Jeremy Brian Weisz[6], Gitai Yahel[5] and Rafel Coma[3]*

[1] Max Planck Institute for Marine Microbiology, Bremen, Germany, [2] Institut de Ciències del Mar, Consejo Superior de Investigaciones Científicas (ICM-CSIC), Barcelona, Spain, [3] Centre d'Estudis Avançats de Blanes, Consejo Superior de Investigaciones Científicas (CEAB-CSIC), Girona, Spain, [4] School of Zoology, George S. Wise Faculty of Life Sciences, Tel Aviv University, Tel Aviv, Israel, [5] Faculty of Marine Sciences, Ruppin Academic Center, Michmoret, Israel, [6] Department of Biology, Linfield University, McMinnville, OR, United States

A Corrigendum on

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In the published article, there was an error regarding the affiliation for Raz Moskovich. As well as having affiliation 5, she should also have 4 "School of Zoology, George S. Wise Faculty of Life Sciences, Tel Aviv University, Tel Aviv, Israel".

In the original article "Gökalp, M., Kooistra, T., Rocha, M. S., Silva, T. H., Osinga, R., Murk, A. J., et al. (2020). The effect of depth on the morphology, bacterial clearance, and respiration of the Mediterranean sponge *Chondrosia reniformis* (Nardo, 1847). *Mar. Drugs* 18:358. doi: 10.3390/md18070358" was not cited in the article. The citation has now been inserted in **Discussion, Oscula Number and Their Cross-Sectional Area, paragraph 1** and should read:

"In both the temperate and tropical species analyzed in this study, the relationships between the total OSA (i.e., the total osculum cross-sectional area) and sponge volume conformed to a power function allometric scaling with a similar exponent ($b = 0.6-0.7$), except for tropical HMAs ($b = 0.99$). A theoretical allometric scaling of the increase in OSA with sponge volume has been recently suggested to be: OSA $\sim V^{2/3}$ and this suggestion was confirmed in small specimens in laboratory experiments (*Halicondria panicea*, $b = 0.66$, Goldstein et al., 2019). Our results agree with those and previous estimates (*Aphrocallistes vastus*, $b = 0.84$, Leys et al., 2011; *Cinachyrella* cf. *cavernosa*, $b = 0.50$, Dahihande and Thakur, 2019) and provide an *in situ* confirmation of the suggested theoretical exponent based on a very limited size range, on several species that encompass the natural range of both parameters (Table 4). An increase of total OSA with sponge volume can be achieved either by the increase of the number of oscula and/or by the increase of OSA with sponge volume. Due to the high morphological plasticity of sponges, changes in the number of oscula and aquiferous modules may be attributed to different environmental conditions (Plotkin et al., 1999; Ereskovskii, 2003). A recent study observed a depth induced change in osculum morphology in *Chondrosia reniformis*. This change was attributed to wave action and sediment loading and did not affect total OSA, bacterial clearance, respiration and growth (Gökalp et al., 2020a; but see Lesser et al., 2020). As the sampled specimens inhabited the same area under similar environmental conditions, we postulate that the observed variability within each species should be attributed to inherent properties such as sponge size, metabolism, and internal structure, rather than to abiotic factors such as temperature and current (Riisgård et al., 1993)."

Additionally, in the original article the reference for "Gökalp et al., 2020" was incorrectly given as "Gokalp, M., Kuehnhold, H., de Goeij, J. M., and Osinga, R. (2020). Depth and turbidity affect *in situ* pumping activity of the Mediterranean sponge Chondrosia reniformis (Nardo, 1847). *bioRxiv* 2020.03.30.009290. doi: 10.1101/2020.03.30.009290". It should be "Gökalp, M., Kuehnhold, H., de Goeij, J. M., and Osinga, R. (2020b). Depth and turbidity affect *in situ* pumping activity of the Mediterranean sponge Chondrosia reniformis (Nardo, 1847). *bioRxiv* 2020.03.30.009290. doi: 10.1101/2020.03.30.009290". A correction has been made to **Introduction, paragraph 3**:

"Direct relationship between the osculum cross-sectional area and the amount of water pumped by a sponge has been recently demonstrated in laboratory experiments with small sponge explants (Strehlow et al., 2016; Kumala et al., 2017; Goldstein et al., 2019; Kealy et al., 2019) and in one *in situ* study (Gökalp et al., 2020b), suggesting that osculum cross-sectional area and the number of oscula may be more practical predictors of sponge pumping."

The authors apologize for these errors and state that this does not change the scientific conclusions of the article in any way. The original article has been updated.