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# Publisher Correction: Acid ceramidase controls apoptosis and increases autophagy in human melanoma cells treated with doxorubicin

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Correction to: *Scientific Reports* https://doi.org/10.1038/s41598-021-90219-1, published online 27 May 2021

The original version of this Article contained errors.

In Figure 5 the labels at the top and bottom of the figure were incorrectly captured. The original Figure 5 and accompanying legend appear below.

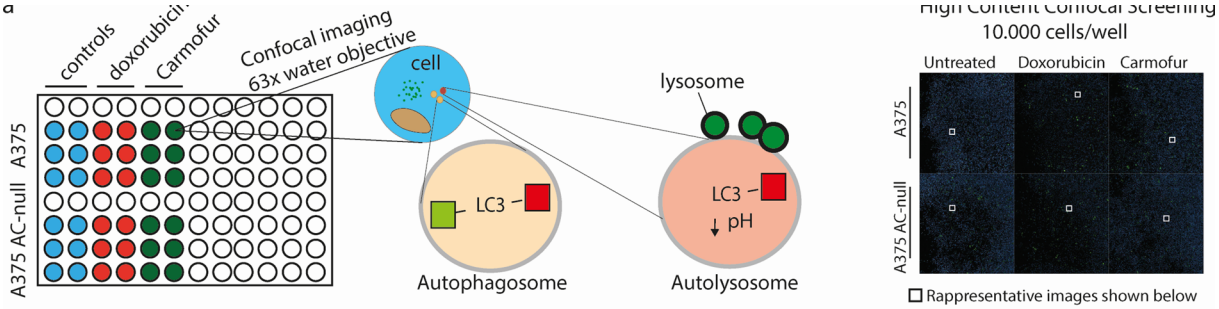
In addition, the Author Contributions section was incomplete.

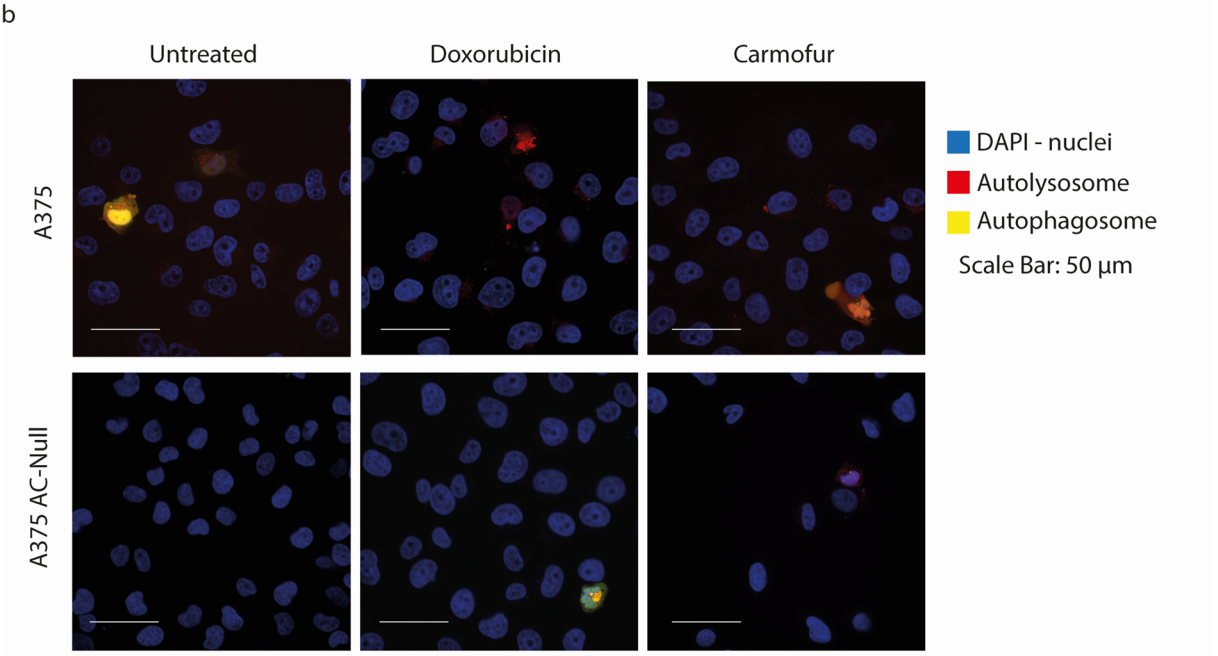
"Conceptualization, M.L. and R.A.; methodology, V.L.R.; validation and statistical analysis, R.A; lipidomic assays M.B; revision of manuscript, G.F., D.P. and MP; writing—original draft preparation, V.L.R; writing review and editing, M.L., R.A.; Confocal screenings: M.L., P.S. All authors have read and agreed to the published version of the manuscript."

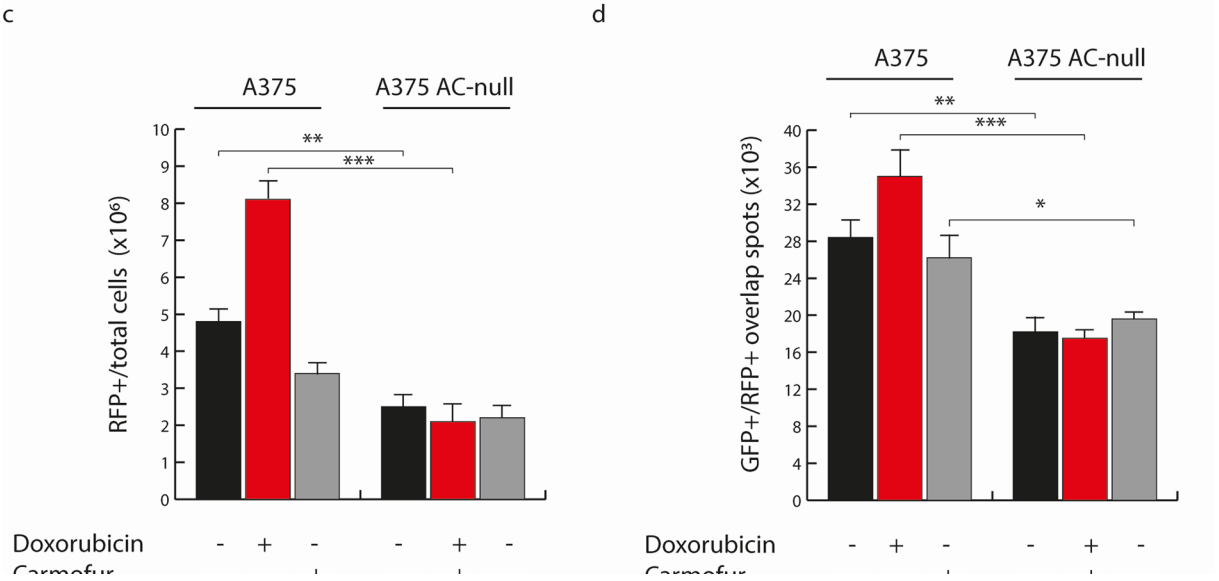
now reads:

"Conceptualization, M.L. and R.A.; methodology, V.L.R.; validation and statistical analysis, R.A; lipidomic assays M.B; data curation, funds management PQ; revision of manuscript, G.F., D.P. and MP; writing—original draft preparation, V.L.R; writing review and editing, M.L., R.A.; Confocal screenings: ML, P.S. All authors have read and agreed to the published version of the manuscript."

The original Article has been corrected.


a
controls
doxorubicin
Carmofur
A375
A375 AC-null
Confocal imaging
63x water objective
cell
lysosome
LC3
LC3
pH
Autophagosome
Autolysosome
High Content Confocal Screening
10.000 cells/well
Untreated
Doxorubicin
Carmofur
A375
A375 AC-null
Rappresentative images shown below


b
Untreated
Doxorubicin
Carmofur
A375
A375 AC-Null
DAPI - nuclei
Autolysosome
Autophagosome
Scale Bar: 50 µm


c
A375
A375 AC-null
RFP+/total cells (x10⁶)
**
***
Doxorubicin
d
A375
A375 AC-null
GFP+/RFP+ overlap spots (x10³)
**
***
*
Doxorubicin

◂**Figure 5.** High-content confocal microscopy autophagy analysis. (**a**) Left panel illustrates the principle of high content confocal microscopy analysis. Briefly, $1 \times 10^4$ pCMV-RFPLC3GFP transfected cells were treated with doxorubicin (500 nM—24 h) and Carmofur (10 µM—24 h). After treatments, cells were fixed and analyzed for GFP + RFP + overlapping puncta and for GFP − /RFP + vesicle content. Around $10^3$ transfected cells/well were analyzed using Harmony algorithms, where RFP + /GFP + vesicles are counted as autophagosomes and RFP + / GFP − vesicles are counted as autolysosomes. The outcome of this test is the following: an autophagy inducer will increase RFP + /GFP + and RFP + /GFP − vesicles, an autophagy blocker will increase RFP + /GFP + but decrease RFP + /GFP − vesicles, whereas an autophagy inhibitor will decrease RFP + /GFP + and RFP + /GFP − vesicles. Right panel shows an overview of a single High-Content acquisition, in which every big square comprises hundreds of 3% overlapping images taken at × 63 magnification. (**b**) Images taken from the acquisition shown in (**a**). (**c**,**d**) Statistical analysis of RFP + /GFP + and RFP + /GFP − vesicles revealed that A375 cells increases the RFP + /GFP + and RFP + /GFP − vesicles when exposed to doxorubicin, compared to A375 AC-null cells, in which autophagy inhibition was detected. Statistical analyses were performed using one-way ANOVA test (*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$). Data are expressed as mean ± SD.