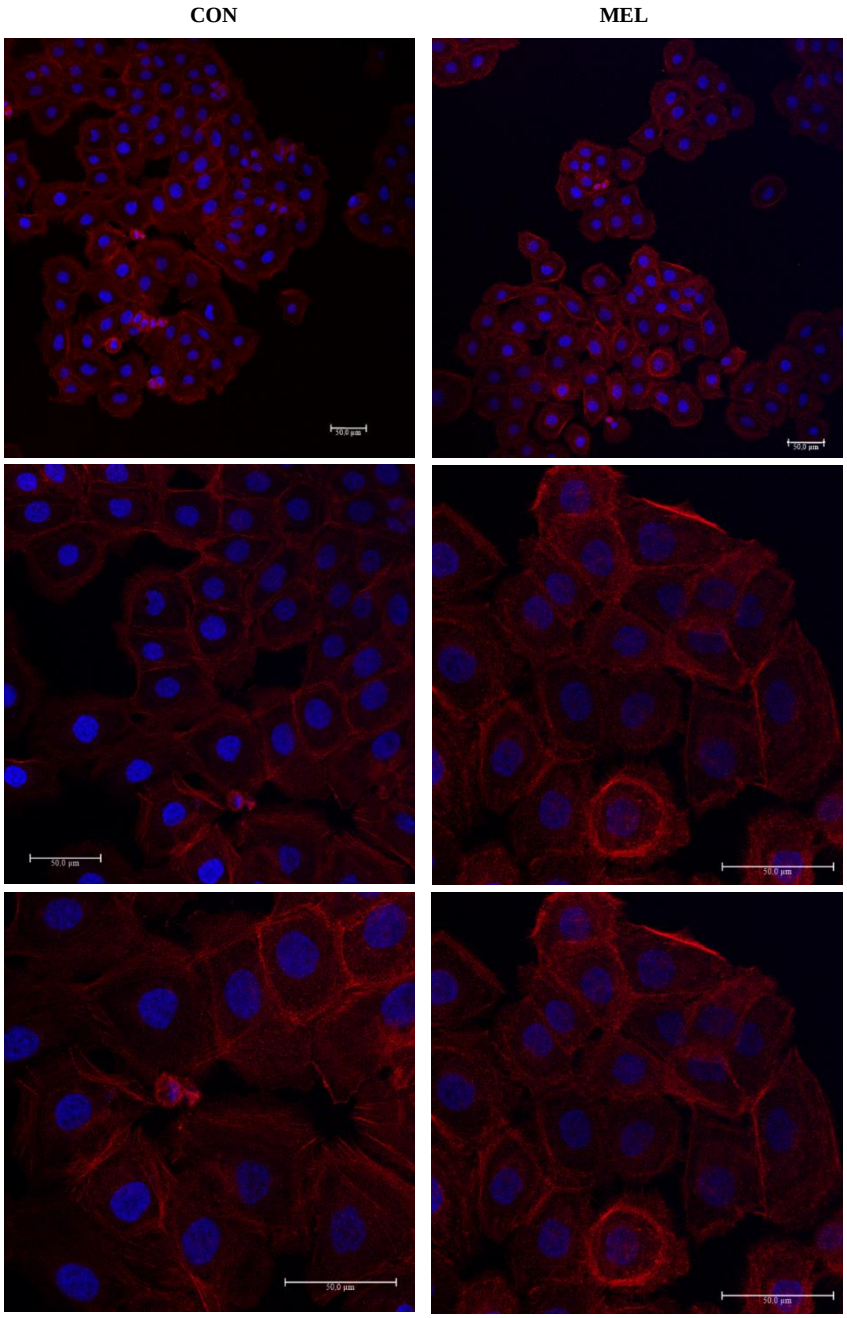
SUPPLEMENTARY MATERIALS

A novel study of melatonin diffusion in a 3-D cell culture model

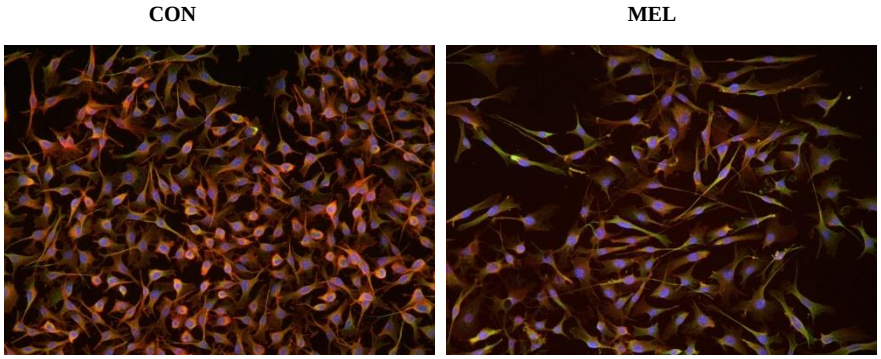
Francisco Artime-Naveda[1,2], Lucas Alves-Pérez, David Hevia[1,2,3], Sergio Alcón-Rodríguez[1,2,3], Sheila Fernández-Vega[1,2,3], Alejandro Alvarez-Artime[1,2,3], Isabel Quirós-González[1,2,3], Rafael Cernuda[1,2], Rosa María Sainz[1,2,3,*], Juan Carlos Mayo[1,2,3,*].



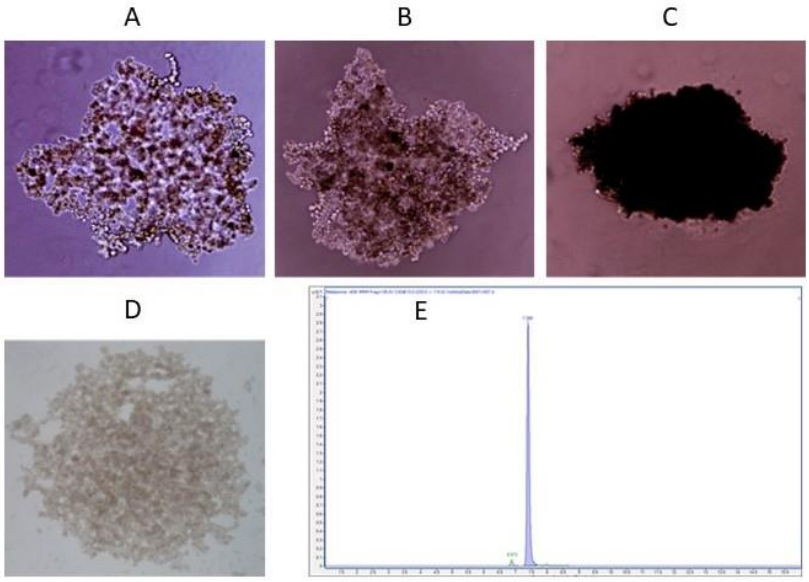
Supplementary Fig.1. Confocal miroscopy images of undifferentiated HaCaT human keratinocytes.

Left panel, control cells (CON) cultured with vehicle (0.1% DMSO); right panel, 1mM melatonin (MEL) treated cells. Red-conjugated Phalloidin was used to visualize F-actin. Cells were counterstained with DAPI.

Melatonin Res. 2023, Vol 6 (2) 173-188; doi: 10.32794/mr112500148



Supplementary Fig. 2. Fluorescence miroscopy images of murine melanoma B16F10 cells.
Left, control cells (CON) cultured with vehicle (0.1% DMSO); right, 1mM melatonin (MEL) treated cells. Red-conjugated Phalloidin was used to visualize F-actin. Green-conjugated antibody was used for visualizing tubulin. Nuclei were counterstained with DAPI. Micrographs show the merge of three colors.



Supplementary Fig. 3. Micrographs showing spheroids of B16F10 cells and HaCaT.
Top panel, B16F10 spheroids after 24 (A), 48 (B) and 96h (C), respectively, displaying an increasing amount of melanin. Bottom panel, micrograph showing a HaCaT spheroid (D) and (E) representative HPLC chromatogram showing the elution profile of both, internal standard (5-methoxy tryptamine, 5-MT) and melatonin, with retention time of 6.8 and 7.5 min, respectively, under conditions described in the M&M section.

Please cite this paper as:
Artime-Naveda, F., Alves-Pérez, L., Hevia, D., Alcón-Rodríguez, S., Fernández-Vega, S., Alvarez-Artime, A., Quirós-González, I., Cernuda, R., Sainz, R.M. and Mayo, J. 2023. A novel study of melatonin diffusion in a 3D cell culture model. Melatonin Research. 6, 2 (Jun. 2023), 173-188. DOI:https://doi.org/https://doi.org/10.32794/mr112500148.