

CORRECTION

Open Access



Correction: Targeting TMEM205 mediated drug resistance in ovarian clear cell carcinoma using oncolytic virus

Uksha Saini¹, Brentley Q. Smith¹, Kalpana Deepa Priya Dorayappan¹, Ji Young Yoo², G. Larry Maxwell³, Balveen Kaur², Ikuo Konishi⁴, David O'Malley¹, David E. Cohn¹ and Karuppaiyah Selvendiran^{1*}

Correction: *J Ovarian Res* 15, 130 (2022)

<https://doi.org/10.1186/s13048-022-01054-5>

Following publication of the original article [1], the authors identified an error in Figs. 1, 5 and Additional file. The correct figures are shown below and updated Additional file 2 is also provided in this article. Also, the Ethics approval and consent to participate section was modified, below is the correct statement. The original article has been corrected.

Ethics approval and consent to participate

The use of stored human tissues in this study was approved by the Institutional Review Board of the Ohio State University Wexner Medical Center under Study

Number: 2004C0124 and the Ohio State University's OHRP Federal wide Assurance #00006378. No human subjects were directly consented for this study as the tissues were obtained from a biorepository. All procedures used in this study were authorized and conducted according to the guidelines of the Ohio State University Research Institute Ethics Committee. All animal experiments were following the Animal Experimentation Ethics of the Ohio State University Animal Experimentation Research Lab, and the ethics approval number for animal experimentation was 2012A00000008-R3.

The original article can be found online at <https://doi.org/10.1186/s13048-022-01054-5>.

*Correspondence:

Karuppaiyah Selvendiran
selvendiran.karuppaiyah@osumc.edu

¹ Division of Gynecologic Oncology, Department of Obstetrics and Gynecology, Comprehensive Cancer Center, The Ohio State University Wexner Medical Center, Columbus, OH 43210, USA

² Department of Neurosurgery, University of Texas, Health Science Center, Houston, USA

³ Inova Women's Service Line and the Inova Schar Cancer Institute, Falls Church, VA, USA

⁴ Division of GYN/ ONC, Kyoto University Graduate School of Medicine, Kyoto, Japan



© 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.

(See figure on next page.)

Fig. 1 Expression of TMEM205 and its involvement in chemoresistance. **A** SDS PAGE gel stained with Coomassie blue displaying the unique bands in OVTOKO (OV) cells which were sent for protein sequencing. TMEM205 was picked for further evaluation (left panel). Coomassie blue stained SDS PAGE gel for the membrane and nuclear fractions of OVTOKO cells (right panel). **B** WB for the expression of TMEM205 in eight OCCC human samples. **C** Real time quantitative PCR based relative mRNA expression of TMEM205 in 10 OCCC tissues. **D** IHC of tissue from a patient with OCCC showing high expression of TMEM205. **E** TMEM205 expression showed in OCCC and normal OSE cell lines. **F** OVTOKO cells showing the membrane expression of TMEM205 (green, counterstained with DAPI for nucleus and orange cell mask membrane stain) (**G**) TMEM205 was knocked down in OVTOKO cells. The knockdown was confirmed in two different clones (OV TM Si1 and Si2) using both RT qPCR and WB. We proceeded with OV TM Si1 clone for the further studies. **H** Cell viability SRB assays were observed with scrambled TMEM205 SiRNA ($n = 5$, $p < 0.005$). **I** When treated with GFP labeled CP, the OVTOKO cells showed CP localized on the outer membranes of cells (green color) while the OVTOKO TMEM Si cells clearly show CP accumulation in the nuclei (counterstained with red plasma membrane stain)

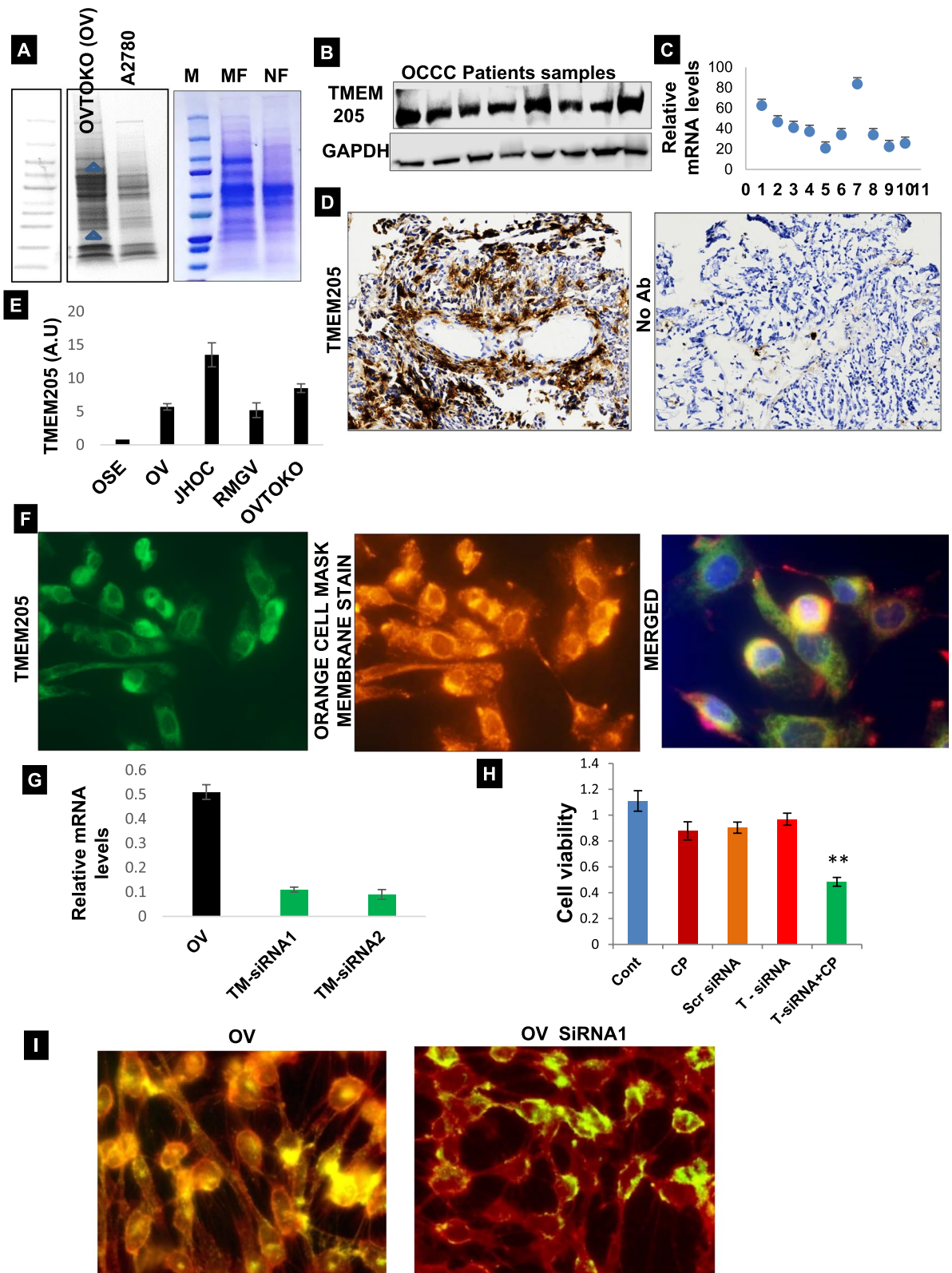


Fig. 1 (See legend on previous page.)

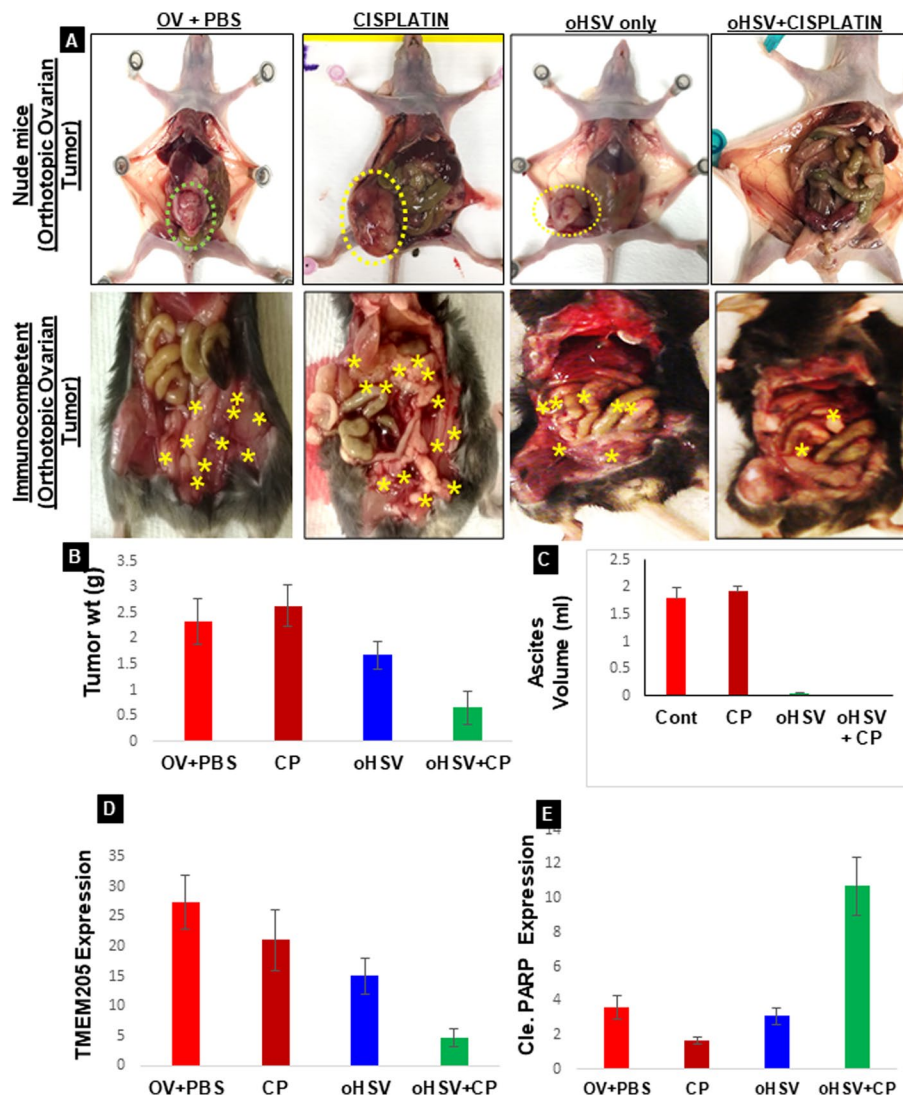


Fig. 5 oHSV pre-treatment followed by CP inhibits clear cell cancer proliferation. **A** Immune deficient mice (top panel) were injected with OVTOKO cells orthotopically (in the ovarian bursa) and after 6 weeks were either left untreated (OV + PBS), treated with CP (cisplatin), treated with oHSV (oHSV only) or treated oHSV (week 1) followed by CP (week 2–4, oHSV+CP) treatments were delivered via intraperitoneal injection. Decrease in tumor volume is observed following treatment ($*p \leq 0.05$ versus untreated controls.) 6 mice were allocated to each group. Large tumor masses were seen in the ovary and kidney in the untreated mice. For the bottom panel, ID8 cells mixed with mouse derived ascites were injected into the ovaries of immunocompetent mice and the treatment groups were same as for the immune deficient mice. **B** The differences in tumor weight ($n = 5$, $*p < 0.01$) and **(C)** ascites volume for 6 immune deficient mice in each group. **D** Western blot of lysates from mice tumor tissues or normal tissues obtained from various groups of treatments. The blot was probed for TMEM205, cleaved PARP, cleaved caspase 3, cleaved caspase 9, and GAPDH. M1 and M2 are different mice from the same group. **E** Tumor-bearing ovaries were excised, and the consecutive tissue sections were stained for rabbit anti-TMEM205 protein Ab to indicate the distribution of TMEM205. High TMEM205 and Ki67 expression is observed in the untreated group and the group treated with CP alone

Supplementary Information

The online version contains supplementary material available at <https://doi.org/10.1186/s13048-023-01111-7>.

Additional file 2.

Published online: 13 February 2023

Reference

1. Saini U, Smith BQ, Dorayappan KDP, et al. Targeting TMEM205 mediated drug resistance in ovarian clear cell carcinoma using oncolytic virus. *J Ovarian Res.* 2022;15:130. <https://doi.org/10.1186/s13048-022-01054-5>.

Ready to submit your research? Choose BMC and benefit from:

- fast, convenient online submission
- thorough peer review by experienced researchers in your field
- rapid publication on acceptance
- support for research data, including large and complex data types
- gold Open Access which fosters wider collaboration and increased citations
- maximum visibility for your research: over 100M website views per year

At BMC, research is always in progress.

Learn more biomedcentral.com/submissions

