

28<sup>th</sup> International Conference on  
**CANCER RESEARCH AND ANTICANCER THERAPIES**  
International Conference on  
&  
**ONCOGENESIS & ONCOLOGIC EMERGENCY MEDICINE**  
&  
3<sup>rd</sup> International Conference on  
**TUMOR & CANCER IMMUNOLOGY AND IMMUNOTHERAPY**  
September 17-18, 2018 | San Diego, USA

## **Exosomes of human melanoma cells induce cancer development in human dermal cells through Rab27a and c-Met**

**Ozge Sezin Somuncu**  
Bahcesehir University, Turkey

Exosomes are small membrane-derived vesicles that transmit DNA constituents, mRNAs, microRNAs and proteins from donor cells to a receiver cell. Many divergent cells comprising mesenchymal cells, immune cells, and cancer cells discharge exosomes. Studies show that cancer cell exosomes create the entry and reprogramming of essentials connected to the tumor environment. A reference study established that melanoma-derived exosomes convey diverse proteins such as c-Met and Rab27a, which indicate a melanoma mark. Increased Met expressions in serum exosomes have thought to be a predictor of disease progression. Meanwhile, Rab27a has identified to be important in exosome discharge. Decreased expressions of Rab27a in human melanoma cells determined to diminish exosome release. This project aims to examine the effects of downregulation and upregulation of Rab27a and c-Met in human melanocytes by utilizing the isolated exosomes from a malignant melanoma cell lineage. Throughout the analysis of cancer-like formation; different protocols covering gene transfections, flow cytometry analysis of the transfection efficiency, Annexin-V apoptosis assays, tube formation assays, ELISA assays and gene expression profiling were performed. According to the results, exosomes derived from cancer cells conveyed information to healthy melanocytes/keratinocytes and induced cellular reaction with Met and Rab27a overexpression, therefore silencing their genes may be a beneficial approach for future treatment possibilities. The developing molecular contextual of melanoma exosomes and their implications for improved management of melanoma patients can be an astonishing therapeutic methodology for future actions.

### **Biography**

Ozge Sezin Somuncu has completed her PhD in the year 2017 at the age of 25 years from Yeditepe University/Turkey. She had a short post-doctoral fellowship in Queen Mary University London and shortly after she had an offer to develop her career as an assistant professor in Turkey. She is currently an Assistant Professor at Bahçeşehir University Faculty of Medicine. She is also the principal investigator of SOMUNCU Lab. She has published 4 papers in reputed journals, 6 submitted manuscripts in 2018, she also has an accepted patent application, running 10 projects and applied for a COST Action. She has been serving as a reviewer in the Journal of Psychiatry and Psychopharmacology. She has collaborations with Queen Mary University London and Harvard Medicine Ophthalmology Department.

ozgesezin.somuncu@vsh.bau.edu.tr

### **Notes:**