

Second Work Presentation on 28th Nov 2025, 11 am at the Auditorium

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Topic: Analysis of molecular cargo and paracrine effects of extracellular vesicles secreted by ovarian cancer cells

Ovarian cancer is usually detected at an advanced stage and prone to develop chemoresistance. Extracellular vesicles (EVs) have been implicated in various cancers due to their role in cell to cell communication and conditioning metastatic niche. There are limited studies employing multi-omics approaches to characterize cargo of EVs liberated from ovarian cancer cells. Moreover, EVs from 3D grown cells and animal models have not been compared with each other. Knowledge of the contents of these EVs and the uptake mechanisms will aid in understanding their role in the survival and spread of the cancer cells. Whether and how they affect development of chemoresistance in ovarian cancer cells also needs to be explored. Towards this the present study was formulated with following objectives: 1) To characterize and compare the proteomic and RNA profile of EVs from 2D and 3D grown ovarian cancer cells 2) To compare the proteomic and RNA profile of EVs from cisplatin sensitive and cisplatin resistant ovarian cancer cells and 3) To delineate the impact of uptake of different EV population on downstream signaling

Data obtained so far will be discussed during presentation.