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22nd Global Annual Oncologists Meeting

May 24-25, 2018 Osaka, Japan

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Scientific Tracks & Abstracts (Day 1)

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Merkel cell carcinoma in an 82 year old Filipino male: A case report and literature review

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Merkel Cell Carcinoma (MCC) is an uncommon, highly aggressive skin malignancy that develops usually in sun-exposed areas, most common on the head and neck area (55%). MCC is mainly a malignancy of UV exposed and fair skinned elderly Caucasians. We report the case of an 82 year old Filipino male who presented with progressive left leg swelling with multiple nodules of varying sizes. The nodules were excised and pathologic diagnosis revealed MCC. The patient underwent chemotherapy however expired due to acute respiratory failure type 1 secondary to acute kidney injury as a complication of tumor lysis syndrome. MCC carries a poor prognosis hence early detection is warranted and vital for patient's survival.

Biography

Hydelene B. Dominguez has completed her Doctor of Medicine from School of Medicine, Saint Louis University, Philippines. She is currently a Resident Physician at the Department of Internal Medicine at SLU-Hospital of the Sacred Heart, Baguio City, Philippines.

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Nupharidines enriched leaf extract of Nuphar lutea reduces experimental melanoma metastases

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Muphar lutea L. SM., leaf and rhizome extracts (NUP), contain nupharidines as active ingredients. Nupharidines belong to the sesquiterpene lactones class of a naturally occurring plant terpenoids. This family of compounds has gained considerable interest for treating infection, inflammation and cancer. NF-κB is a central, downstream regulator of inflammation, cell proliferation and apoptosis. In our previous work we demonstrated strong inhibition of NF-κB activity and induction of apoptosis by NUP. In addition, NUP exhibited anti-inflammatory properties and partial protection from LPS-induced septic shock by modulating ERK pathway and cytokine secretion in macrophages. In the present study, we examined the effect of NUP in a B16 melanoma experimental murine lung metastasis model and its ability to affect the ERK and NF-κB pathways in variety of cell lines. We showed that NUP and cisplatin combined treatment was synergistic and reduced the lung metastatic load. In addition, NUP treatment inhibited TNFα-induced IκBa degradation and NF-κB inactivation by NUP. Interestingly, NUP treatment induced ERK activation. Furthermore, ERK inhibition prevented NF-κB inactivation by NUP. Interestingly, NUP treatment induced ERK activation in a human melanoma cell line, expressing BRAF mutation. Overall, our work implies that co-administration of NF-κB inhibitors with standard anticancer drugs or radiotherapy, may act as sensitizers or as inhibitors of multidrug resistance.

Biography

Jacob Gopas has completed his BSc from Bar-Ilan University, Israel, PhD from Albert Einstein College of Medicine, USA and Post-doctorate from Ben-Gurion University. He is a Professor, Head of the Laboratory of the Institute of Oncology, Soroka University Medical Center, Israel and teaches cell and cancer biology. His research includes basic and clinical cancer biology, Hodgkin's lymphoma, and new plant compounds against inflammation, pathogens and cancer. He has published more than 90 articles together with Israeli, German, Indian and American scientists and physicians and holds several patents (founded by the Israel Science Foundation, Israel Ministry of Health, Israel Ministry of Science, Israel Cancer Association and NIH).

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NRF2 attenuates EMT by regulating the expression of snail in ovarian cancer

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Epithelial-Mesenchymal Transition (EMT) is a phenotype conversion that plays a critical role in the development of cancer progression. It is known that snail could regulate the progression of EMT. Nuclear factor erythroid 2 related factor 2 (NRF2), a key regulator of antioxidant defense system, protects cells against oxidative stress. We discovered overexpression of NRF2 is poor prognosis in human ovarian cancer patient's tissue section by tissue microarray. In this study, expression of NRF2 in A2780, TOV-21G, TOV-112D and ES-2 human ovarian cancer cell lines and virus transformed human ovarian cell line A2780 was examined by qPCR and western blot. NRF2 expression was further studied in A2780 and transfection cell lines. By Western blot analysis, the performance of the NRF2 and snail is consistent in shNRF2 of A2780 cell lines. Down-regulation of NRF2 could increase cisplatin sensitivity and decrease cell migration and invasion. Therefore, we suggested NRF2 attenuates EMT by regulating the expression of snail in ovarian cancer.

Biography

Yu-Chieh Lee has completed her PhD from Taipei Medical University, Taiwan and Postdoctoral studies from Taipei Medical University Hospital of Gynaecology. She is interested in chemotherapy response biomarker, predictive biomarker chemotherapy and cancer biology.

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Novel roles of gelsolin, a cytoskeletal protein, in regulating chemoresistance and cancer cell survival

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Colorectal cancer is one of most common types of cancer worldwide. Current first line chemotherapeutic treatment of colorectal cancer comprises 5-fluorouracil (5-FU)-based regimen. However, response to 5-FU-based therapy varies in patients and development of drug resistance also impedes the effectiveness of treatment. Therefore, there is a pressing need to understand the mechanisms of drug resistance and identify new targets to help overcome chemoresistance. Accumulating evidence suggest that regulators of actin cytoskeleton play critical roles in the resistance to treatment and disease progression, via modulating cell survival/cell death pathways. Herein, we identify that gelsolin, an actin depolymerizing factor, contributes to resistance to 5-FU in colorectal cancer cells. Using colorectal cancer cell lines, we showed that gelsolin protected cells from 5-FU-induced cell death, while reducing gelsolin levels could sensitize cells to 5-FU treatment. Furthermore, gelsolin modulated autophagy, an important cell survival process against stresses, as a cytoprotective mechanism in response to 5-FU. We also demonstrate that gelsolin could be a potential prognostic marker for colorectal cancer patients, where patients with high levels of gelsolin and autophagy-regulating proteins showed shorter disease-free survival, compared to those with lower expression levels. In summary, we demonstrated a role of gelsolin in regulating autophagy, which contributes to 5-FU based chemotherapy, and as a possible prognostic factor in patient survival.

Biography

Shuo Deng has completed her PhD from National University of Singapore and continued her Postdoctoral training at Yong Loo Lin School of Medicine, National University of Singapore. She has published more than six papers in reputed journals and has been serving as a Reviewer in reputed journals.

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