Immunosuppressive activities in primary glioblastoma cells isolated from GBM patients with the treatment of autologous dendritic cell/tumor antigen (ADCTA) immunotherapy

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Glioblastoma multiforme (GBM) is the most frequent and with the poorest prognosis among malignant brain tumors, with a median survival of 14.6 months. Development of new and GBM specific therapies is thus a field of most attractive research. Recently, the finished phase II clinical trial in China Medical University Hospital, Taiwan, demonstrated that autologous dendritic cell/tumor antigen (ADCTA) immunotherapy can significantly increase the median survival period of 28 months with 5-year survival rate of 18% (versus less than 1% for the historical control GBM patients). However, for some patients beyond 60 years of age or with incomplete tumor removal, the benefit of the ADCTA immunotherapy was not obvious. The outcome of vaccination is largely dependent on immunosuppression of tumor microenvironment. In the present study, we have established and evaluated primary GBM cells, which are much closed to GBM tissues in patients via our well-defined methodology, for ADCTA-based immunization strategy. Results indicate the secretion of immnosuppressive factors that inhibit the GM-CSF/IL-4 induction of antigen processing molecules, such as tartrate-resistant acid phosphatase (TRAP). Expression of immunosuppressive molecules are also examined in primary cells from GBM patients and found that an intracellular enzyme, indoleamine 2,3-dioxygenase (IDO), is expressed in high levels in most of GBM cells. These results might be useful for establishing immediately feasible adjuvant modulations to ADCTA-therapy for GBM, as well as to shed light on new mechanistic insights on how host immune activities can be improved.

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Dear Dr. Chiu,

The review and scheduling of abstracts submitted for the 5th WIN Symposium, WIN 2013, to be held in Paris, France, July 10-12, 2013 has been completed. **I am pleased to inform you that your abstract has been accepted for poster presentation.**

Abstracts accepted for poster presentation will be published on the symposium website as of Monday, July 8, 2013, 09:00 am CET, and will appear in the WIN 2013 abstract USB key, distributed on-site in Paris. Abstracts will not be published in an indexed scientific journal.

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If you still need to book hotel accommodation for your stay in Paris, you are advised to do so at your earliest possible. Paris is a popular tourist destination in July.

We look forward to welcoming you to Paris.

Yours sincerely,
Symposium Secretariat WIN 2013

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