“ALTERNATIVE SPLICING OF THE FOXP3 GENE IN REGULATORY T CELLS IS A PROGNOSTIC FACTOR FOR ADJACENT DC THERAPY IN GLIOBLASTOMA MULTIFORME”

Shao-Chih Chiu[1,2]

[1] Graduate Institute of Immunology, China Medical University, Taichung, Taiwan.

[2] Center for Neuropsychiatry, China Medical University Hospital, Taichung, Taiwan.

Poster abstract:

Background: As the most malignant high-grade glioma, prognosis for patients with glioblastoma multiforme (GBM) has only a median survival of 15 month, and 88% mortality within 3 years. Our own phase II clinical trial demonstrated that Dendritic Cell-therapies (DC-therapies) can induce potent anti-tumor activity and diminish tumor progression. Further limiting local immunosuppressive responses may help augment the efficacy of our DC-therapy.

Methods: We isolate Tregs from infiltrating lymphocytes (TILs) of GBM by FACS analysis; we analyze the expression of key molecules of Treg function and correlate with the DC-therapy response of the corresponding patient.

Result: We report the presence of Tregs in GBM tumor TILs, these Tregs express 3 different isoforms of the FOXP3 gene by alternative splicing, one of which represents a naturally occurring dominant negative version of the Foxp3 protein. The differential expression level of Foxp3 isoforms constitutes an excellent prognosis factor for patients receiving adjacent DC-therapy for GBM.

Conclusion: Tregs may limit DC-therapy against GBM, while the differential expression of Foxp3 isoforms could provide a basis for the evaluation of the effectiveness of DC-therapy. Functional abrogation of Foxp3 by tuning the splicing preference to its dominant negative isoform may offer an attractive window to inhibit Treg activity.

10th of May 2011.

Dear Dr. Shao-Chih Chiu,

This letter certifies that your abstract has been accepted by Congress Scientific Committee for publishing at Congress Abstract Book and poster presentation at the 4th International Congress of Molecular Medicine.

Poster presentation

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Shao-Chih Chiu[1,2]

[1] Graduate Institute of Immunology, China Medical University, Taichung, Taiwan.

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We are looking forward to welcoming you in Istanbul, Turkey on June 27th-30th, 2011.

Prof. Dr. Turgay İsbir,

Congress Chairperson
Chairperson of Turkish Society of Molecular Medicine

TURGAY İSBİR