

IDS TCW QUARTERLY NEWSLETTER – 1/2009

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Dear Colleagues,

We would like to update you about the progress of the T Cell Workshop initiatives.

As proposed in our previous newsletter, three projects have now been successfully launched:

1) T1D T Cell Epitope Database: starting from her recently published review article, Teresa DiLorenzo has updated and posted on our website a comprehensive database including both CD4+ and CD8+ epitopes, mouse and human. This database will be periodically updated, and you can notify omissions, errors or additions directly to the Author, as indicated on the website. Please note that data will be entered based exclusively on published reports, and scored according to different “degrees of evidence”, depending on results included in the quoted report.

2) IDS TCW Freezing Study I: this protocol – coordinated by Tim Tree - has been launched on January 2009 and involves 10 different T-cell Laboratories worldwide, each enrolling 5 T1D patients and 5 healthy controls. The aim is to compare two mainstream freezing/thawing protocols, namely cold vs. warm freezing medium (DMSO-human serum). These protocols will be compared to local ones performed by each Laboratory, when available. The aim is to define starting “gold standard” freezing procedure(s) performing superiorly across different T cell assay formats (i.e., best cell recovery and viability, preservation of beta-cell-specific T cell responses as compared to fresh PBMC samples). The selected protocol(s) will subsequently be validated in larger multicentre studies during the second phase of this initiative, and compared to other promising protocols when available. Details about this study can be found on our website.

3) Proto-TDEVI Study: this is the first phase of a larger TDEVI (Tetramer-Directed Epitope Validation Initiative) promoted by the Benaroya Research Institute in Seattle under the sponsorship of JDRF and coordinated by Ivana Durinovic-Bello. The aim of TDEVI is to promote a novel collaborative strategy of epitope validation, based on independent, blinded tetramer testing performed in multiple Laboratories on a limited number of blood samples. This first phase has been launched on March 2009. It includes a CD4+ and a CD8+ T cell arm and involves the 9 Labs of the TCW Committee. It is expected to provide proof of principle about the feasibility of the strategy along with independent validation of a first limited set of epitopes: HLA-DR4-restricted GAD₂₇₀₋₂₈₅, GAD₅₅₄₋₅₆₇, PPI₇₆₋₉₀; and HLA-A2-restricted GAD₁₁₄₋₁₂₂, GAD₅₃₆₋₅₄₅, PPI₃₄₋₄₂ and PPI₁₀₁₋₁₀₉. To this end, each Lab will enroll 10 T1D patients. Although the aim of this study is one of epitope validation and not of assay validation, tetramer-based assays will be run in parallel to local CD4+ and CD8+ T cell assays, in order to identify promising formats which could later be tested in other multicentre initiatives. Details about this study will soon be posted on our website.

Finally, do not miss the TCW session at the IDS-10 in Malmö on Tuesday May 19th at 08.30. We have an outstanding program where we will discuss these TCW initiatives. The program also includes a lecture from Dr. Alessandro Sette and selected oral presentations.

In addition, we would like to remind you to join the “T Cell Karaoke” evening in Malmö on Tuesday May 19th at 21.00. This is thought as an informal event where to openly discuss T cell issues and enjoy good music and good company.

Hoping that these initiatives will catalyze the interest of additional investigators, we look forward to your feedback and to see you soon in Malmo!

The IDS TCW Steering Committee