

**A106 IDENTIFICATION OF CITRULLINATED FIBRINOGEN PEPTIDES AS T CELL EPITOPES IN HUMANISED HLA-DR4 TRANSGENIC MICE**

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**Background** Antibodies directed against citrullinated proteins (ACPAs) are highly specific for rheumatoid arthritis (RA). The production of ACPAs is most likely dependent on the presence of T cells, since ACPAs undergo isotype switching and are associated with the shared epitope-containing HLA-DRB1 alleles. Fibrinogen is a likely candidate protein for T cell recognition, since a large subset of patients is positive for ACPAs that are reactive with (peptides derived from) citrullinated fibrinogen.

**Objectives** The aim of this study was to identify citrullinated fibrinogen peptides that are presented to HLA-DRB1\*0401-restricted T cells.

**Methods** HLA-DR4-transgenic mice were immunised with citrullinated fibrinogen and T cell proliferation against all possible citrullinated fibrinogen peptides derived from the  $\alpha$ ,  $\beta$ ,  $\gamma$  chain was analysed.

**Results** T cell reactivity against several different citrullinated fibrinogen peptides was observed.

**Discussion** Ongoing research is aimed at determining whether these responses are citrulline-specific and whether there is reactivity against the identified citrullinated peptides in PBMCs of RA patients.