Clinical efficacy of Ovasave is linked to lytic molecule expression

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Regulatory T (Treg) cells play a crucial role in the maintenance of tolerance and are an ideal target for the development of therapies designed to suppress inflammation in an antigen-specific manner. TxCell develops cellular immunotherapy based on Ag-specific Type 1 Treg (Ag-Treg). Ag-Treg are identified by their capacity to produce high levels of interleukin 10 (IL-10), which contributes to their ability to suppress pathological immune responses. Another mechanism by which Ag-Treg cells control immune responses is the killing of myeloid cells. To date GZMB is the only lytic molecule described to drive this killing. Here we show that Ova-Treg cells (Ovasave®), a product from ASTrIA platform for the treatment of patients with Crohn's disease (currently in PhIIb), express and secrete other lytic molecules. Analysis of Drug Products generated during the PhI/IIa clinical trial on Crohn's disease indicate a major role of Granzyme expression in the mechanism of action of Ovasave® as their expression was correlated with clinical efficacy.