

Othy S., Bruneval P., Topçu S., Dugail I., Delers F., Lacroix-Desmazes, Bayry J. and Kaveri S.V. (co last authors) (2012). Effect of IVIg on human dendritic cell-mediated antigen uptake and presentation: role of lipid accumulation *J. Autoimmun* 39(3):168-72.

Intravenous immunoglobulin (IVIg) is a therapeutic preparation consisting of pools of normal, polyspecific IgG antibodies obtained from plasma of several thousand healthy individuals. In addition to its use in primary and secondary immune deficiency, IVIg is increasingly used in the therapy of a large number of autoimmune conditions. Despite its successful use in immunopathologies for over two decades, the precise mechanisms underlying the therapeutic benefit have not been fully elucidated. We and others have demonstrated that IVIg inhibits the antigen uptake and presentation by dendritic cells (DC). Here we report that IVIg-mediated inhibition of uptake and processing of antigens is associated with an increased accumulation of lipid as analyzed by flow cytometry and electron microscopy. As accumulation of lipids in DC is known to impart tolerogenic properties, these findings unravel novel link between antibodies and intracellular physiology of innate cells and may further uncover novel immunoregulatory mechanisms of IVIg in auto-inflammatory diseases.