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**Participation of plasmacytoid dendritic cells and NKT cells in the mouse model of lupus induced by non-bilayer phospholipid arrangements**Landa S Carla<sup>1</sup>, Sánchez B Sandra<sup>1</sup>, Reséndiz M Albany<sup>1</sup>, Galicia G Viridiana<sup>1</sup>, Flores R Leopoldo<sup>2</sup>, Wong R Carlos<sup>1</sup>, Wong B Carlos<sup>1</sup> and Baeza R Isabel<sup>1</sup><sup>1</sup>ENCB- The National Polytechnic Institute, Mexico<sup>2</sup>CINVESTAV - The National Polytechnic Institute, Mexico

Systemic lupus erythematosus (SLE) is a multifactorial autoimmune disease, where animal models are used to study its pathogenesis. We have developed a mouse model of autoimmune disease resembling human lupus by the injection of liposomes with non-bilayer phospholipid arrangements (NPA). Also, we described the presence of IgG antibodies against NPA in the serum of mice with lupus and patients with SLE. In this work, we determined by citofluorometry the presence of plasmacytoid dendritic cells (pDC) the main producer of type I interferons, and of NKT cells in the secondary lymphoid organs of mice, 30 and 60 days after the injection of liposomes with or without NPA induced with 8 mM promazine. In both groups of mice injected with liposomes bearing NPA, a significant increase of pDC cells (5-fold) was found, which correlates with the high concentration of type I interferon previously detected in mice with lupus and in human SLE. A significant increase of NKT (3-fold) was detected at 30 days, specifically in the NKT subpopulation CD4<sup>+</sup> which is known to cooperate with B cells in response to lipid antigens; this increase suggests its probable involvement in adaptive immune responses, which lead to the production of anti-NPA IgG antibodies. The increase of pDC and NKT cells found by cytometry in secondary lymphoid organs in this work, suggests their involvement in the formation of anti-NPA IgG antibodies and the development of the disease resembling human lupus.

**Biography**

Landa S Carla is a PhD Scholar, and is currently working with murine lupus model induced by lipidic antigens. We are interested in the immune response, especially in the participation of NKT cells and plasmacytoid dendritic cells (pDC) in this autoimmune disease. We had found an increase in the percentage of NKT cells by pDC in secondary lymphoid organs at 10, 20 and 30 days after being injected in mice with non-bilayer phospholipid arrangements and we already know that these antibodies are produced via germinal centers in this murine model that resembles human lupus.

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