

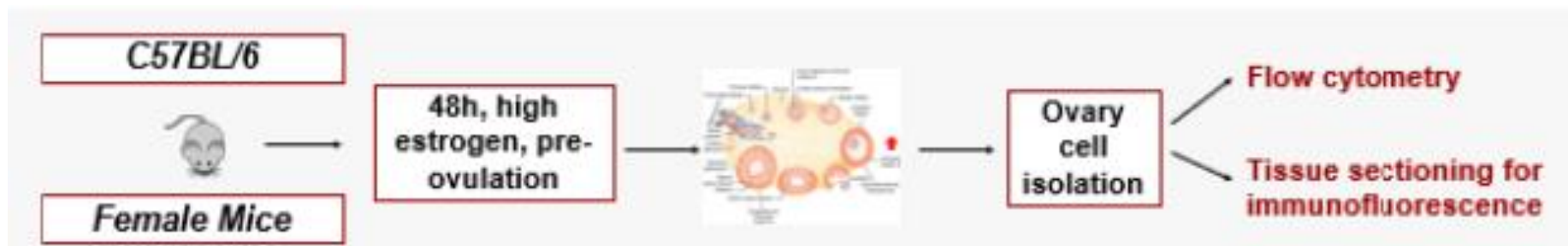


Investigating the Impacts of Estrogen Receptor Alpha (ER α) Deficiency on Dynamics of the Ovarian Immune Microenvironment

Lucy Salter¹, Tia Brodeur^{1,2,3}

Indiana University School of Medicine¹, Department of Obstetrics and Gynecology², Division of Reproductive Endocrinology and Infertility³

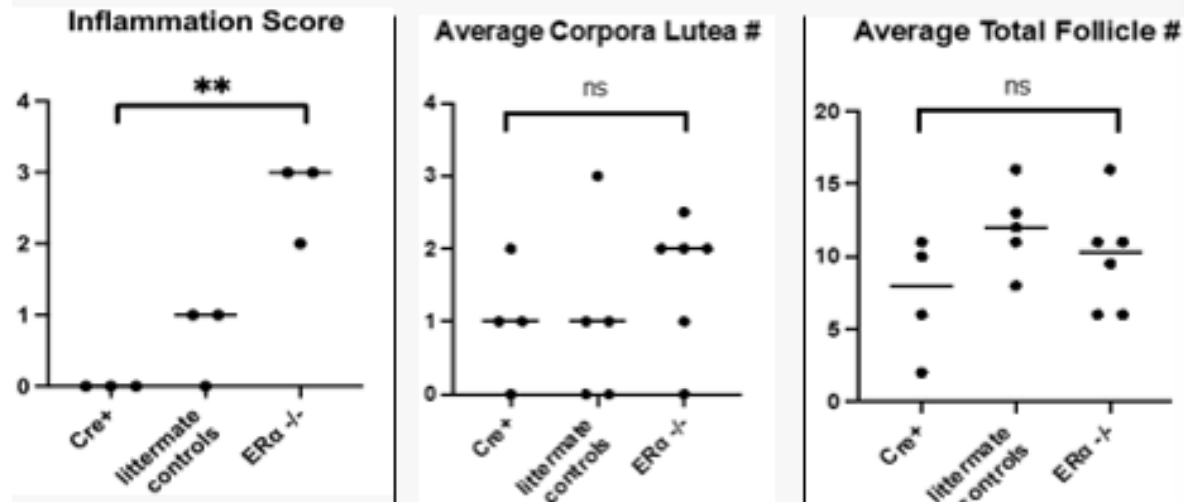
Hypothesis: Mice with ER α deficient macrophages, upon exposure to exogenous gonadotropins, will have an increased influx of macrophages and NK cells as well as increased inflammation which will impair follicular development and lead to a decrease in ovarian follicle number.



- 1 Explore variations in follicle number
- 2 Investigate changes in inflammation and macrophage trafficking
- 3 Identify differences in NK cell recruitment and determine NK role

Flow Cytometry: Ovarian stimulation drives NK cell activation

IHC: ER α deficiency leads to increased inflammation and does not affect follicular development or ovulation



Immunofluorescence: NK cells are present in both ER α deficient and control ovarian tissues.