

## **Abstract of Presentation**

**Presentation Title:**

Fc Receptor Signaling in Phagocytic Leukocytes

**Abstract:**

Specific receptors for antibody, named Fc Receptors are proteins found on the surface of leukocytes. Fc receptors contribute to the protective functions of the immune system, by binding to antibodies that are attached to infected cells or invading pathogens. Fc receptor activity stimulates phagocytic or cytotoxic cells to destroy microbes, or infected cells by antibody-mediated phagocytosis or antibody-dependent cell-mediated cytotoxicity. The main signal transduction pathways that are initiated by Fc receptors in phagocytic leukocytes involve Src kinases that phosphorylate tyrosines within the ITAMs (immunoreceptor tyrosine-based activation motifs), present in the Fc receptor-associated chains. The phosphorylated ITAMs then become docking sites for Syk. Active Syk induces the formation of a molecular complex (or signalosome) organized around the adaptor molecules SLP76 and LAT. From this signaling complex, various pathways lead to activation of phagocytosis or gene expression depending on the type of leukocyte. Thus, different Fc receptors possess different signaling capabilities.