Research Aims

Aim 1. Role of bone marrow in dengue virus (DV) infection is largely unexplored, despite early bone marrow suppression is a known fact. Bone marrow stem/progenitor cells are highly permissive to DV infection. The involvement of bone marrow in DV infection and the interactions with bone marrow stem/progenitor cells are the focus of the research. (Fig1 & Fig2)

Aim 2. To explore the potential usage of arboviruses and/or DV in tumor/cancer treatment. (Fig 3)

Aim 3. To understand the pathogenesis of disease development during viral infections and the innate host response to these infections. Dissecting the dynamic interactions between viruses and a susceptible host factor are the theme of investigation. (Fig 4)

Aim 4. Engagement of the interactions of other viral agents and the effect they may have with bone marrow cells are also an interest.

Selected Publications