Viral Infections in the Heart and the Host Interferon Response

Research emphasis:
Dr. Sherry’s laboratory studies viral pathogenesis in a mouse model. In particular they investigate viral infections of the heart to identify the viral and host determinants of cardiac damage. They use a wide range of molecular, cellular, and genomic approaches in the mouse and in primary murine cell cultures to probe antiviral cell responses. They have found that the interferon-β response is an important determinant of protection against viral myocarditis, and thus another major focus for the laboratory is in defining components of the upstream and downstream interferon-β pathway that are cell type-specific.

Selected publications:

Application:
- Mouse models
- Primary cell cultures
- Viral infections
- Interferon responses

Collaboration potential:
- Mouse models including pregnant females and neonates
- Primary murine cardiac and skeletal muscle cell cultures
- Viral infections in cell culture and viral pathogenesis in the mouse
- Testing antivirals, investigating signal transduction pathways