Epidemiology is a branch of medicine that examines the incidence, distribution, and possible control of diseases and other factors relating to health. Incidence summarizes the number of individuals who develop a disease or condition during a specific time period and indicates the likelihood that a person in a specific population will be affected by that condition.

Dr. Rosella’s study, *The epidemiology and health system impact of mitochondrial disease and psychiatric conditions in Ontario: a population-based study*, is the first to establish a methodological approach to measure mitochondrial disease from population data across Canada.

The overall goal of this study is to use linked population health databases to characterize the epidemiology of mitochondrial disease and the co-occurrence with mental health conditions in Ontario. Our specific objectives are to examine:

1. **the health care burden** and costs associated with mitochondrial disease in a population-based cohort in Ontario
2. **the association** between mood disorders and other mental health conditions in patients with mitochondrial disease and,
3. **the joint impact** of mental health conditions on the health care use, costs and mortality.

For the first time in Canada, we will
a) contribute key epidemiological evidence to inform health and health care for those living with mitochondrial conditions, and
b) further support hypotheses and research on the relationship between mitochondrial disease and mental health.

Funding for this innovation grant will allow us to build fundamental methodology that can be replicated across Canada and enable future international research to compare mitochondrial disease populations and further study of health care utilization and costs.