

Aims and Objectives

The current work aims to find out a probable parasitic gene as a vaccine candidate against *Leishmania* infection. To date, so many potential antigenic candidates have been tested but failed in a clinical trial. Herein, we chose MAPK10 as a potential antigenic candidate because it shows homology with host ERK-1/2. In *Leishmania* infection, ERK-1/2 is associated with disease progression. Based on this hypothesis, we frame our main objective which is mentioned below:

1. Identification and screening of novel *Leishmania* antigen.
2. Cloning and expression of novel *Leishmania* antigen.
3. Therapeutic vaccination and evaluation of the effectiveness of anti-leishmanial immune response through priming induced memory T-cell response.