Objectives
Objectives

Objectives of this study

Nitric oxide (NO) exerts plethora of cytotoxic and cytoprotective effects in biological systems depending up on its concentration, presence of other reactive species and target molecules etc. To study the effects of nitrosative stress on eukaryotes, *S. cerevisiae* can be used as an excellent model due to its simple and unicellular nature.

*S. cerevisiae* flavohemoglobin, an ancient protein related to the globin family, plays a central role in NO detoxification in *S. cerevisiae* protecting the cells from various deleterious effects of NO and NO related species. The present work is designed to study the effects of NO and reactive nitrogen species (RNS) in flavohemoglobin deleted mutant of *S. cerevisiae* using proteomic approaches. The objectives of the present work are as follows:

1. **Effect of NO and Reactive nitrogen species on the growth of wild type and flavohemoglobin deleted strain of *S. cerevisiae***.

2. **Protein Tyrosine Nitration: Consequences of its formation in *S. cerevisiae***.

3. **Proteomic analysis of flavohemoglobin deleted strain of *S. cerevisiae***