**Research Methods**

**Overview of Tutorial**

Title: A Phylogenetic Exploration of parasite receptor in Anopheline Species

Research Questions

* How closely related are the pfs47 receptor found in different Anopheles Mosquito species.
* Can any relationship be observed between Pfs47 receptor of Anopheles species and other mosquito species?

**Objective:** To develop an R script to construct a phylogenetic tree using a FATSTA file containing protein sequences of mosquito species.

**A few statements about the intended approach/methods**

**Sequence Data Preparation:** The initial stage involved the collection of DNA sequence/Protein sequences of mosquito species.

**Phylogenetic Tree Construction**: The phylogenetic tree will be constructed using R software with established algorithms implemented in libraries such as Phangorn, ape, and seqinr.

**Statistical Support Assessment:** Statistical support for the inferred phylogenetic relationships will be evaluated using bootstrap resampling or Bayesian probabilities.

**Tree Visualization and Interpretation**: The tree will be displayed with appropriate labels and annotations to facilitate interpretation.

**References**

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