**Mansoura University**



**Faculty of Computers and Information**

**Department of Computer Science**

**Project Proposal**

# مشروع الكشف عن مرض الملاريا

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##### Malaria Detection Project

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### **Submitted by:**

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Project Abstract:

Malaria is one of the deadliest diseases across the globe. This is caused by the bite of female Anopheles mosquito that transmits the Plasmodium parasites. Some current malaria detection techniques include manual microscopic examination and RDT. Redcell receptors provide unique entry points for *Plasmodium* parasites to initiate blood-stage malaria infection. by focusing on these receptors we are trying to minimize time complexity to identify the existence of malaria.

Project Objectives:

how to use indexing technique to discover the trace of malaria in human genome by determining the position of receptors. And analysis the Ligands to detect infected and uninfected .

Who are the project **competitive**? and how will your project be **different**?

instead of traditional technique which depend on manual microscopic examination and RDT. we are trying to benefit from the evolution in genomic studies over last few years .

Tools, Hardware and Software Resources:

**Tools :-**

**NCBI browser for dataset ,**

**GEO Accession viewer**

**bash script ,**

**python .**

**Software:-**

**SRA toolkit**

**Google cloud**

**No machine**

**MySQL**

**VS.Code**

SCHEDULING PHASES:

|  |  |  |
| --- | --- | --- |
| **From** | **To** | **Activity** |
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References:

[**https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4964589/**](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4964589/)

[**https://www.coursera.org/learn/dna-sequencing#syllabus**](https://www.coursera.org/learn/dna-sequencing#syllabus)