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| **Protocol Project Group P18 – Bwanya 1** |

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AI-generated content may be incorrect.

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| **PROJECT ID** |  |
| **Title:** |  |
| **Version:** | **01** |
| **Author(s)**  **(+ initials)** |  |
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| --- | --- | --- | --- |
| **Revision / History** | | **Review** | |
| **Version** | **Change description** | **Date** | **Initials** |
| 01 | First issue |  |  |
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This template aims to guide through the production of a clear protocol. Text in red should be removed or replaced by appropriate content. Please select together with your supervisor the content blocks required for your project and remove the other, not applicable ones.

**Writing style:**

Use the active voice as much as possible; avoid to use “I” or “we”. Use concise and clear style to guide the reader through a step-by-step process.

**Format:**

The document from section 1. – 6. should be 5 pages maximum. The first page should list clearly all the authors of the protocol. Please use minimum font size of 11.

**Logbook:**

Do not forget to indicate the contribution of each author into your logbook for future discussion with the project supervisor. (not in this document)

**START OF PAGE LIMIT: 1/5**

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| 1. INTRODUCTION |

Give here a brief introduction of the technique and context in which you are using it.

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| 2. SOFTWARE / DATA |

For this project, various programs and databanks are employed to aid in the project’s progress:

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| --- | --- | --- |
| **Name** | **Description** | **Version / Developer** |
| Github | Github is an online and desktop application. It is employed to create a global location where files can be saved and shared collectively.  The primary function of Github is to work together on code, but the program can also be used to store the team LOGBOOK and other files of interest. |  |
| R | R is a programming language primarily used for statistical data visualisation. | 4.2.2 |
| Rstudio | Rstudio is a coding program which integrates the coding language R. Consequently, it is employed to work on the working code and to generate data, working towards answering the research question. |  |
| Rstudio packages: | DESqe2: |  |
|  | ggplot2: |  |
|  | dplyer: |  |
|  | pheatmap: |  |
|  | clusterprofiler: |  |
|  | org.Hs.eg.db: |  |
|  | GEOquery |  |
| NCBI | GEO (Gene Expression Omnibus): |  |

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| 3. HEALTH AND SAFETY (if applicable) |

For lab work - indicate here any health and safety related issues you need to pay attention while executing the tasks in the protocol.

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| 4. SPECIFIC RECOMMENDATIONS / WARNING (if applicable) |

Indicate here specific cautions that have to be taken such as to prevent any damage of the instrument (like a maximum recommended temperature, a typical flow rate, etc…)

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| 5. PROCEDURE TO FOLLOW |

Please indicate here all the necessary steps needed to perform the experiments. Someone should be able to reproduce the experiments following your protocol.

Tips: Use bullet points; make it straightforward, and add screenshots, schematic drawings or photos to guide the user. Use headings to separate different tasks in a logical order.

E.g.

1. Tissue sample preparation

* Open the container and take out the tissue sample using sterile tweezers
* Rinse the sample 3 times with buffered NaCl.
* ……….

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| 6. DATA ANALYSIS AND STATISTICS (if applicable) |

Give here a brief overview of how to analyse and present the obtained data. Name the software (e.g. Excel, R, or SPSS – also in section 2.) and statistical methods (e.g. students t-test, Fisher’s test) you used for data analysis.

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| 7. LITERATURE |

Indicate any literature if needed, or reference to other documents needed to understand / complement this protocol. That includes scientific papers, websites, databases or books.

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| 8. APPENDIX (if required) |

Add here any materials or information that are needed to understand/reproduce the protocol, but are too extensive to add to the main text.