

# Something Analysis Reveals ARG shenanigans across Metro Manila

Author One<sup>1\*†</sup>, Author Two<sup>2†</sup>, Author Three<sup>2</sup>, and Author Four<sup>1,2</sup>

<sup>1,2,3,4</sup>College of Public Health, University of the Philippines Manila, Metro Manila, Philippines.

<sup>1</sup>Department of Medical Microbiology, University of the Philippines Manila

<sup>3</sup>Department of , University

\*Address correspondence to: email@email.com

†These authors contributed equally to this work.

Month/DD/YYYY

## Abstract

Cool opening sentence that states problem and how this paper addresses it.

Context yada yada

Our approach, highlight novelty and/or significance.

200-300 word abstract that expands abbreviations: ARG (Antimicrobial resistance genes).

Brief statement of primary results or theoretical benefits. Short conclusion.

## 1 Introduction

**Cool eye-catching headline**

**Context** Brief explanation of importance of ARGs must explain eloquently to a wider audience.

**Current status in science** Mention the current methods used, their findings, and their limitations.

**Details on ARGs** More specific information:

- Mechanisms of spreads
- Difficulty in combating it
- Importance of surveillance
- Where current approaches fall short

- What makes our study worth it or at least useful

**Note:** explain in a way that is understandable to audiences without technical background.

**Note:** ensure to clarify to reviewer 2 why the implications of doing this study is important.

Cause they often ask why it is important to the journal we are trying to get into.

## Citations

Just make sure you follow the citation rules they want, it's usually APA 6th Edition depending on the journal - use a bibliography manager to make your life easier.

## Figures and Tables labeling notes

- Tables are labeled at the top.
- Figures are labeled at the bottom.

## Equations

Equations should be provided in a text format, rather than as an image. Equations should be numbered consecutively, in round brackets, on the right-hand side of the page by using the ‘\begin{equation}’ command. They should be referred to as Equation 1, etc. in the main text.

For example, see Equation 1 and Equation 2 below.

$$a^2 + b^2 = c^2 \tag{1}$$

$$\begin{aligned} A &= \frac{\pi r^2}{2} \\ &= \frac{1}{2} \pi r^2 \end{aligned} \tag{2}$$

## Figures

### Data visualization guidelines

- Focus on showing trends; R can achieve this using a sort function.
- Use jitter or violin plots instead of standard boxplots for better clarity.
- Remove background clutter like grid lines when possible.
- Emphasize if you are using log-transformed axes.
- Use color-blind friendly color palettes.
- Ensure the figure is interpretable with minimal context.
- Split the figure into multiple panels if necessary to improve clarity.

- 52 • Account for potential sources of bias, e.g., population size or density.
- 53 • **Never use 3D visualizations.**
- 54 • **Never cut axes—use a log transform if needed.**
- 55 • Avoid circular plots (e.g., pie charts, spider diagrams); **humans are bad at estimating**
- 56 **relative abundances.**
- 57 • **Always include a threshold, sweet spot, or some form of guidance for interpreta-**
- 58 **tion.**

## 59 General guidelines

- 60 • **Figures should be called out based on when they are referenced.**
- 61 • Every figure must have a descriptive title beginning with ‘Figure [Number] ...’
- 62 • All figure titles should be either a phrase or a sentence; do not mix the two styles.
- 63 • Start each caption with Fig./Table.[Number]
- 64 • Captions must be in full sentences <200 words
- 65 • **Nomenclature, abbreviations, symbols and units must be included in the text and**
- 66 **must be consistent with that used in the text**
- 67 • Place legends immediately after each figure <200 words
- 68 • **Figures should be readable in either two (half page width) or one columns (full**
- 69 **page width); highly depends on the journal.**
- 70 • Subfigures, if any, should be ordered logically with roman letters (A,B,C, etc.,)
- 71 • **Prepare electronic copies for the figures alone, in case the reviewers request them**
  - 72 – Most be in either PDF, PostScript (PS), or Encapsulated PS format
  - 73 – For microscopy: PDF, TIFF, JPEG, PNG, PhotoShop (PSD), or EPS
  - 74 – Images should be >300 dpi
  - 75 – Images and labels should be embedded in separate layers
  - 76 – **Recommended** post your figures in public repository like FigShare and raw metadata
  - 77 on repositories like Zenodo (free) or Dryad (can be subsidized if your University is a
  - 78 Dryad member).
- 79 • Make sure include statistical tests and variables used.

Figure 1: Short title of the figure. The figure legend should begin with a title (an overall description of the figure) followed by additional text. Each legend should be placed immediately after its corresponding figure.

Figure 2: Example caption using multiple panels. (??) FiX.A shows (describe figure and legend)(??) FigX.B shows (describe the figure and legends)

## Tables

### General guidelines

- **Tables are meant to supplement NOT duplicate the text**
- They are listed in order of citation in the text
- Starts with **descriptive title** followed by Table [Number]
- Include units in column heading, per vertical column
- **Include units** in column headings in parenthesis
- **Do not change units within columns** - convert or normaize if you have to
  - Avoid using vertical rules/grid lines between columns use tab-delimited spacing instead
  - Spare vertical gridlines for headers
  - **Recommended** Do not use footnotes in column heads
    - \* include captions in sentence form on at the legend
    - \* footnotes must contain information relevant to specific cells
    - \* use lowercase letters in alphabetical order
  - If table is very large, use centered headings to split the tables into groups

## 2 Results

Describe all experiments then all its associated findings - simple.

- No new data should be presented in Discussion section. All tables and figures should be in the correct order they are referenced.
- Subheadings must be either all complete sentences or all phrases <10 words, no punctuations allowed.

Table 1: This is an example table.

Column 1	Column 2	Column 3
Cell 1	Cell 2	Cell 3
Cell 4	Cell 5	Cell 6

## 101 3 Discussion

- 102 • Summarize (but don't just repeat) your conclusions and their implications.
- 103 • Dedicate a paragraph outlining the limitations of the study and its interpretations.
- 104 • Include steps to be taken for the findings to be applied.
- 105 • **Recommended:** Avoid claims of priority.

## 106 4 Materials and Methods

- 107 • Must have sufficient information to allow replication.
- 108 • Should be broken up into subheadings
- 109 • In cases where it is too lengthy, they recommend you put some of it in Supplementary Materials

### 110 4.1 Experimental Design

111 Describe objectives and pre-specified requirements.

### 112 4.2 Statistical Analysis (Optional)

113 Add enough detail that a proficient stat expert can replicate the findings with enough data.

### 114 4.3 Ethical Statements

115 For investigations on humans, a statement must be including indicating that informed consent was  
116 obtained after the nature and possible consequences of the study was explained.

117 For authors using experimental animals, a statement must be included indicating that the ani-  
118 mals' care was in accordance with institutional guidelines.

## 119 Acknowledgments

120 Anyone who made a contribution to the research or manuscript, but who is not a listed author,  
121 should be acknowledged (with their permission). Types of acknowledgements include:

### 122 General Acknowledgments

123 Thank others for any contributions, whether it be direct technical help or indirect assistance

124 Examples:

125 "The original team that conceived the idea."

126 "The engineering departments that helped pinpoint locations in sample collection."

127 "Authors that indirectly contributed to make experiments possible."

128 — \_\_\_\_\_ lab leader for letting us borrow equipment."

## 129 Author Contributions

130 Describe contributions of each author to the paper, using the first initial and full last name.

131 Examples:

132 ‘ \_\_\_\_\_ conceived the original idea. .’

133 ‘ \_\_\_\_\_ conducted the experiments.’

134 ‘ \_\_\_\_\_ authors contributed equally to the writing of the manuscript.’

## 135 Funding

136 Name financially supporting bodies (written out in full), followed by the funding awardee and asso-  
137 ciated grant numbers (if applicable) in square brackets.

138 Example:

139 ‘This work was supported by the \_\_\_\_\_ Research Council [grant num-  
140 bers xxxx, yyyy]; the \_\_\_\_\_ [grant number zzzz]; and a \_\_\_\_\_  
141 Project Grant.’

142 If the research did not receive specific funding, but was performed as part of the employment  
143 of the authors, please name this employer. If the funder was involved in the manuscript writing,  
144 editing, approval, or decision to publish, please declare this.

## 145 Conflicts of Interest

146 Authors must declare all potential interests – whether or not they actually had an influence in this  
147 section. They must also explain why the interest may be a conflict. Authors must declare current  
148 or recent funding (including for Article Processing Charges) and other payments, goods or services  
149 that might influence the work. All funding, whether a conflict or not, must be declared in a ‘Funding  
150 Statement.’

151 This includes:

- 152 • Authors who have an interest in the outcome of the work or,
- 153 • authors affiliated to an organization with such an interest or,
- 154 • was previously paid or employed by a funder in commissioning, conception, planning, design,  
155 conduct, analysis, publishing, and/or decision to publish.
- 156 • **Recommended:** Avoid claims of priority.

157 Otherwise, state something like ‘The author(s) declare(s) that there is no conflict of interest  
158 regarding the publication of this article.’

## 159 Data Availability

160 This is compulsory nowadays. This statement describes whether and how others can access the data  
161 supporting the findings of the paper. The database should include

- 162 • Nature of the data
- 163 • Where it can be accessed
- 164 • Data restrictions and why
- 165 • Accession numbers or placeholders for it
- 166 • Materials that must be obtained through a Material Transfer Agreement (MTA)

## 167 Supplementary Materials

168 Includes: figures, tables, clips, voice recordings, etc. not included in the paper.

169 So the usual format is Figures *i*, Tables *j*, Other files; but highly dependent on the when they are  
170 referenced in the paper

171 Example: Fig. S1. Title of the first supplementary figure.

172 Fig. S2. Title of the second supplementary figure.

173 Table S1. Title of the first supplementary table.

174 Data file S1. Title of the first supplementary data file.

175 Movie S1. Title of the first supplementary movie.

176 **Recommended:** cite specific sections not general sections

177 Provide a link to access the supplementary materials

178 Supplementary Materials may include additional author notes

## 179 Guidelines for References

180 Style depends on the publisher.

181 "Data not shown" is allowed if applicable

182 References between Supplementary Materials and main text are not separate, they are included