

Genome analysis

# Template for preparing a submission to Bioinformatics using RMarkdown

Alice Anonymous<sup>1,2</sup>, Bob Security<sup>1</sup>

<sup>1</sup>Some Institute of Technology, Department, Street, City, State, Zip

<sup>2</sup>Another University Department, Street, City, State, Zip

To whom correspondence should be addressed. E-mail: bob@email.com

Associate Editor: XXX

Received on XXX; revised on XXX; accepted on XXX

## Abstract

**Motivation:** This section should specifically state the scientific question within the context of the field of study.

**Results:** This section should summarize the scientific advance or novel results of the study, and its impact on computational biology.

**Availability:** This section should state software availability if the paper focuses mainly on software development or on the implementation of an algorithm. Examples are: ‘Freely available on the web at XXX.’ Website implemented in Perl, MySQL and Apache, with all major browsers supported’; or ‘Source code and binaries freely available for download at URL, implemented in C++ and supported on linux and MS Windows’. The complete address (URL) should be given. If the manuscript describes new software tools or the implementation of novel algorithms the software must be freely available to non-commercial users. Authors must also ensure that the software is available for a full TWO YEARS following publication. The editors of Bioinformatics encourage authors to make their source code available and, if possible, to provide access through an open source license.

**Contact:** bob@email.com

**Supplementary information:** Supplementary data are available at Bioinformatics Online.

## 1 Introduction

Cite others using bracket notation (Pepe, 2003). Can also cite with Zou and Hastie (2005).

Instructions for authors are available online.

Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum.

Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum.

## 2 Approach

Here is how to include math equations in the document (bounded by  $\$ \$$ ):

$$\begin{aligned}(x + y)^3 &= (x + y)(x + y)^2 \\ &= (x + y)(x^2 + 2xy + y^2) \\ &= x^3 + 3x^2y + 3xy^2 + y^3.\end{aligned}$$

Describe the approach. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum.

Describe the approach. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum.

Describe the approach. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum.

Describe the approach. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum.

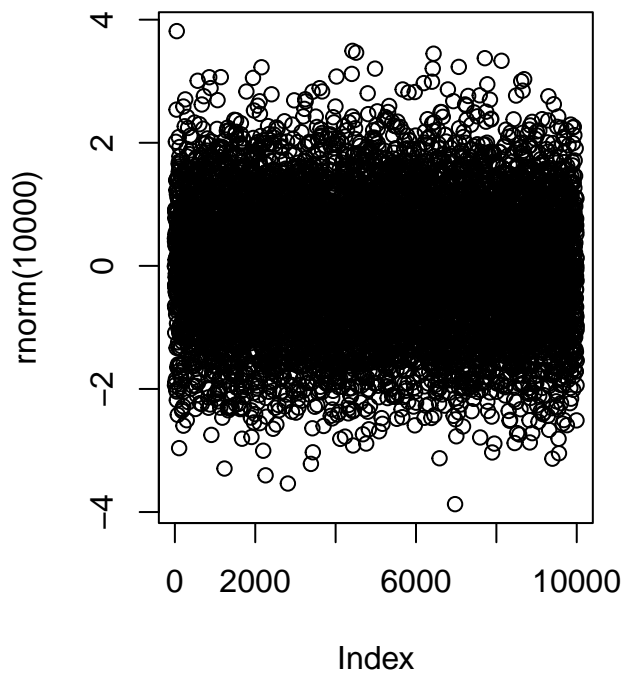


Fig. 1. Figure from an Rmd chunk.

nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum.

### 3 Methods

Detailed methods. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum.

Detailed methods. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum.

Detailed methods. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum.

#### 3.1 Sub-Method

Details for Method 1. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum.

Details for Method 1. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum.

Details for Method 1. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum.

Details for Method 1. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum.

#### 3.2 Method 2

Details for Method 2. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum.

Details for Method 2. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum.

Details for Method 2. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum.

Details for Method 2. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum.

### 4 Discussion

Discussion of results. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum.

Discussion of results. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum.

Discussion of results. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum.

Discussion of results. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum.

### 5 Conclusion

Anything else? Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum.

Anything else? Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum.

Anything else? Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum.

Anything else? Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum. Introduce your topic. Lorem ipsum ad nauseum.

## Acknowledgements

These should be included at the end of the text and not in footnotes. Please ensure you acknowledge all sources of funding, see funding section below.

Details of all funding sources for the work in question should be given in a separate section entitled ‘Funding’. This should appear before the ‘Acknowledgements’ section.

## Funding

The following rules should be followed:

- The sentence should begin: ‘This work was supported by ...’ -
- The full official funding agency name should be given, i.e. ‘National Institutes of Health’, not ‘NIH’ (full RIN-approved list of UK funding agencies)
- Grant numbers should be given in brackets as follows: ‘[grant number xxxx]’

- Multiple grant numbers should be separated by a comma as follows: ‘[grant numbers xxxx, yyyy]’
- Agencies should be separated by a semi-colon (plus ‘and’ before the last funding agency)
- Where individuals need to be specified for certain sources of funding the following text should be added after the relevant agency or grant number ‘to [author initials]’.

An example is given here: ‘This work was supported by the National Institutes of Health [AA123456 to C.S., BB765432 to M.H.]; and the Alcohol & Education Research Council [hfygr667789].’

Oxford Journals will deposit all NIH-funded articles in PubMed Central. See Depositing articles in repositories – information for authors for details. Authors must ensure that manuscripts are clearly indicated as NIH-funded using the guidelines above.

## References

- Pepe, M. S. (2003). *The statistical evaluation of medical tests for classification and prediction*. Oxford University Press.
- Zou, H. and Hastie, T. (2005). Regularization and variable selection via the elastic net. *Journal of the Royal Statistical Society: Series B (Statistical Methodology)*, **67**(2), 301–320.