Abstract

**Background:** This is the background.

**Methods:** My methods are perfect. Don’t criticize them.

**Results:** My results are entirely reproducible.

**Conclusions:** R Markdown makes reproducible research through literate programming pretty easy.

### 1 Background

This will be the background section. I will probably have to make a citation or two here like this (1, 2)

### 2 Methods

Here I will describe my amazing biomarker discovery project and how I quantitatively measured 45231 proteins simultaneously with mass spectrometry using one internal standard on a 10 min cycle time.

#### 2.1 Figures

I will embed a figure like this. I will be cross-referenced. See figure 1

But I might also want to include a reference against the one ELISA I tested of my 45231 proteins. See figure 2.

#### 2.2 Inline Calculations

When you are reporting your amazing results you can have inline code like the median value of $x$ being reported as 43.9.

#### 2.3 Tables

I have found `xtable()` a little easier to control than `kable()` but both work. See table 1

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Table 1: xtable does a nice job
Figure 1: This is the ancient aliens guy.

Figure 2: This is a reproducible figure.
2.4 Math

Math works pretty magically using \LaTeX syntax. For example, $\sin^2 x + \cos^2 x = 1$. And:

$$\exp(i\pi) = -1$$

Equations can be cross-referenced just like tables and figures.

3 Discussion

Clearly this method is awesome and I should get more funding from CIHR or NIH. Time to self-cite to improve my h-index (3) and maybe cite multiple papers together to show how the .csl file takes care for appropriate reference formatting. (1–3)

4 Conclusion

I hope this makes writing a reproducible paper easier for you.

References

