

# Package ‘CyTOFpower’

January 16, 2022

**Type** Package

**Title** Power analysis for CyTOF experiments

**Version** 1.0.0

**Description** This package is a tool to predict the power of CyTOF experiments in the context of differential state analyses. The package provides a shiny app with two options to predict the power of an experiment:  
i. generation of in-silico CyTOF data, using users input  
ii. browsing in a grid of parameters for which the power was already precomputed.

**biocViews** FlowCytometry, SingleCell, CellBiology, StatisticalMethod, Software

**License** LGPL-3

**Encoding** UTF-8

**Depends** R (>= 4.1)

**Imports** CytoGLMM, diffcyt, DT, dplyr, ggplot2, magrittr, methods, rlang, stats, shiny, shinyFeedback, shinyjs, shinyMatrix, SummarizedExperiment, tibble, tidyr

**RoxygenNote** 7.1.2

**VignetteBuilder** knitr

**Suggests** testthat (>= 3.0.0), BiocStyle, knitr

**Config/testthat/edition** 3

**git\_url** <https://git.bioconductor.org/packages/CyTOFpower>

**git\_branch** RELEASE\_3\_14

**git\_last\_commit** 72c95c5

**git\_last\_commit\_date** 2021-10-26

**Date/Publication** 2022-01-16

**Author** Anne-Maud Ferreira [cre, aut] (<<https://orcid.org/0000-0002-4749-746X>>),  
Catherine Blish [aut],  
Susan Holmes [aut]

**Maintainer** Anne-Maud Ferreira <anne-maud.ferreira@stanford.edu>

## R topics documented:

CyTOFpower . . . . . 2

**Index** . . . . . 3

---

CyTOFpower                      *CyTOFpower: R-package to predict the power of a CyTOF experiment*

---

### Description

This package provides functions and a shiny app to predict the power of a CyTOF experiment.  
Interactive shiny app to predict the power of a CyTOF experiment.

### Usage

```
CyTOFpower()
```

### Value

Interactive shiny app.

### Examples

```
# Launch the shiny app
if (interactive()) {
  CyTOFpower()
}
```

# Index

CyTOFpower, [2](#)