

# Package ‘vici’

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**Title** Vaccine Induced Cellular Immunogenicity with Bivariate Modeling

**Version** 0.7.0

**Date** 2023-04-26

**Description** A shiny app for accurate estimation of vaccine induced immunogenicity with bivariate linear modeling. Method is detailed in: Lhomme, Hejblum, Lacabaratz, Wiedemann, Lelievre, Levy, Thiebaut & Richert (2020). Journal of Immunological Methods, 477:112711. <[doi:10.1016/j.jim.2019.112711](https://doi.org/10.1016/j.jim.2019.112711)>.

**BugReports** <https://github.com/sistm/vici/issues>

**License** GPL-3

**Encoding** UTF-8

**LazyData** true

**Imports** cowplot, DT, ggplot2, grDevices, ggpubr, nlme, shiny, stats, tidy, utils, numDeriv, stringr, RColorBrewer, scales, shinyWidgets

**Suggests** testthat

**RoxygenNote** 7.2.3

**NeedsCompilation** no

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**Repository** CRAN

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ICS\_ex

*Toy data to upload in the app.***Description**

Toy data to upload in the app.

**Usage**

```
data(ICS_ex)
```

**Format**

A tab-separated .txt file

**Examples**

```
if(interactive()){
  set.seed(1382019)
  nsubj <- 20
  ntp <- 3
  nstim <- 3
  narm <- 3
  subj <- rep(rep(rep(1:nsubj, each = ntp), times = nstim), times = narm)
  stim <- rep(rep(c("NS", "S1", "S2"), each = nsubj*ntp), times = narm)
  tp <- rep(rep(c("D0", "D1", "D3"), times=nsubj*nstim), times = narm)
  a <- rep(c("Placebo", "A2", "A3"), each = nsubj*nstim*ntp)
  y1 <- round(abs(rnorm(n=nsubj*nstim*ntp*narm,m = 0.03, sd=0.06)) +
    (stim=="S2" & a == "A2" & tp == "D1")*abs(rnorm(n=nsubj*nstim*ntp*narm, m = 0.05, sd=0.01)), 4)
  y2 <- round(abs(rnorm(n=nsubj*nstim*ntp*narm,m = 0.03, sd=0.06)) +
    (stim=="S1" & a == "A3" & tp == "D3")*abs(rnorm(n=nsubj*nstim*ntp*narm, m = 0.1, sd=0.02)), 4)
  ICS_ex <- cbind.data.frame("Subject" = subj, "StimulationPool" = stim, "TimePoint" = tp,
    "Arm" = a, "Response1" = y1, "Response2" = y2)

  #View(ICS_ex)
  write.table(ICS_ex, file="Documents/GitHub/vici/data/ICS_ex.txt", sep="\t",
    row.names = FALSE, quote = FALSE)
}
```

run\_app

*Launch VICI Shiny App***Description**

Launch VICI Shiny App

*run\_app*

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### **Usage**

```
run_app(...)
```

### **Arguments**

... additional arguments to be passed to the [runApp](#) function.

### **Examples**

```
if(interactive()){  
  vici::run_app()  
}
```

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