Contents

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1
    \mathbf{R}
\mathbf{R}
1.1
OS
                Windows
                           Download R-4.x.x for Windows (x
https://cran.r-project.org/bin/windows/base/
1.2
     {\bf Next}
        OK
              Message translation R
  {\it \# https://cell-innovation.nig.ac.jp/SurfWiki/R\_errormes\_lang.html}
  Sys.getenv("LANGUAGE") #
  Sys.setenv(LANGUAGE="en") #
  Sys.setenv(LANGUAGE="jp") #
   Yes
          (MDI / SDI)
                                                 )
    SDI
                      MDI 1 Window
                                                              SDI
                                                                            Window
         (Plain text / HTML help)
    Plain text
                           Plain text
                                                  HTML help
                                                                  (GoogleChrome)
    ( ) OK
1.3
```

2 ggplot2

2.1 R

- base(graphics)
- lattice
- grid
- \bullet ggplot2

2.2 ggplot2

ggplot2 tidy data

2.3 ggplot2

 $\begin{array}{ccc} 1 & & \text{plot} & & \text{facet} \\ \text{magrittr} & & \text{\%\%\%T\%} \end{array}$

 $\begin{array}{c} {\rm magrittr} \\ {\rm ggplot 2} \end{array}$

ggpubr

2.4 ggplot2

iris vegan dave tidy data gather() spread() pivot_longer() pivot_wider() Hadley aesthetics geom_point() geom_bar() aes() colour group size

2.5 facet

for subset dplyr::filter group VS facet

2.6 ggsave

 $\begin{array}{cc} \bullet & \operatorname{png} \operatorname{PDF} \\ & \operatorname{PDF} & & \operatorname{png} \end{array}$

•

2.7 (windows)

-cario?

2.8 theme

•

• $theme_bw()$

2.9 shiny

R reactive