

2024-04-12 A user perspective on using iSEE interactive websites

R packages for today:

```
if (!requireNamespace("remotes", quietly = TRUE)) {  
  install.packages("remotes")  
}  
remotes::install_cran("BiocManager")  
BiocManager::install("iSEE")
```

This session will complement our set of past *iSEE* sessions which were mostly coder-oriented:

- (user) heatmaps (centering and scaling)
 ▶ [2022-12-01] Gene expression heatmaps: benefits of centering and scaling
- (coder) exploring expression data with *ggpubr* & *iSEE* https://youtu.be/Z9BKdA_fP58
- (coder) exploring expression data with *iSEE* <https://youtu.be/bK8D30MqXb8>

iSEE documentation:

- Demonstration *iSEE* app: <http://shiny.imbei.uni-mainz.de:3838/iSEE/>
- Other examples: <https://github.com/iSEE/iSEE2018>
- *iSEE* paper: <https://doi.org/10.12688/f1000research.14966.1>
- Bioconductor landing page: <https://bioconductor.org/packages/iSEE/>
 - Main *vignette* (tutorial) for users:
<https://bioconductor.org/packages/release/bioc/vignettes/iSEE/inst/doc/basic.html>
- GitHub home: <https://github.com/iSEE/iSEE>
 - Live examples:
<https://github.com/iSEE/iSEE?tab=readme-ov-file#want-to-try-isee>
- *Post-recording update*: Charlotte Soneson highlighted the existence of <https://isee.github.io/> via a [Bluesky reply](#)

Some of LIBD's *iSEE* apps:

- Tran, Maynard, et al., *Neuron*, 2021:
https://github.com/LieberInstitute/10xPilot_snRNAseq-human?tab=readme-ov-file#explore-the-data-interactively
- Huuki, et al., *bioRxiv*, 2023: <https://research.libd.org/spatialDLPFC/#interactive-websites>
- Kwon et al., *GEN Biotechnology*, 2023:
https://research.libd.org/Visium_SPG_AD/#interactive-websites
- From classes: *recount3* data for SRA study SRP009615
https://libd.shinyapps.io/SRP009615_2024/
- 3 main types of gene expression data we visualize with *iSEE*:
 - Bulk RNA-seq
 - sc/snRNA-seq

- Pseudo-bulked sc/snRNA-seq or Visium data (spatially-resolved transcriptomics)