

# Package: OSCA.advanced (via r-universe)

May 28, 2026

**Title** Advanced Single-Cell Analysis

**Version** 1.21.0

**Date** 2025-11-19

**Description** Deploys the advanced analysis chapters for the `"Orchestrating Single Cell Analysis with Bioconductor"` book. This describes the more complex steps of a single-cell RNA-seq analysis ranging from doublet detection, cell cycle assignment, specific steps for processing droplet data, nuclei-specific analyses, trajectory analyses, integrated analyses with protein abundances, and interactive visualization. It also elaborates on some of the basic analysis steps, focusing on alternative strategies and theoretical considerations. It is intended for readers who are already familiar with basic single-cell analyses, possibly after reading some of the prior books in this collection.

**Depends** AnnotationHub, batchelor, BiocFileCache, BiocNeighbors, BiocParallel, BiocSingular, bluster, clustree, corral, densvis, DropletTestFiles, DropletUtils, edgeR, ggbeeswarm, ggplot2, gridExtra, igraph, iSEE, limma, msigdbr, mumosa, org.Mm.eg.db, pheatmap, rebook, rmarkdown, Rtsne, scater, scDbfFinder, scPCA, scran, scrapper, scRNAseq (>= 2.17.9), scuttle, SingleR, slingshot, snifter, TENxBrainData, tradeSeq, TSCAN, velociraptor, viridis

**Imports** OSCA.workflows, OSCA.basic, OSCA.multisample

**Suggests** rmarkdown, knitr

**VignetteBuilder** knitr

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**URL** <https://github.com/OSCA-source/OSCA.advanced>

**biocViews** ImmunoOncologyWorkflow, Workflow, SingleCellWorkflow

**Config/pak/sysreqs** libcairo2-dev cmake libfontconfig1-dev libfreetype6-dev libfribidi-dev libglpk-dev libgmp3-dev libharfbuzz-dev libmagick++-dev gsfonts libbz2-dev libicu-dev libjpeg-dev liblzma-dev libpng-dev libtiff-dev libuv1-dev libwebp-dev libxml2-dev libssl-dev perl python3 libnode-dev xz-utils zlib1g-dev

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**Repository** <https://tempbioc.r-universe.dev>

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**RemoteUrl** <https://github.com/bioc/OSCA.advanced>

**RemoteRef** HEAD

**RemoteSha** 84c44efb72cfed29ab9e66d68ae4ea0763c02910