

Package: NOVA (via r-universe)

May 26, 2026

Type Package

Title Network Of Versatile Cell-Cell Communication Analysis

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Author Zaoqu Liu [aut, cre]

Maintainer Zaoqu Liu <liuzaoqu@163.com>

Description NOVA (Network Of Versatile cell-cell Analysis) is a high-performance R package for predicting and visualizing cell-to-cell communication networks from single-cell and bulk transcriptomic data. It leverages connectomeDB2020, the most comprehensive manually curated ligand-receptor interaction database, to identify signaling interactions between cell types. NOVA features vectorized computations, parallel processing, and seamless integration with Seurat (V4/V5) for efficient analysis of large-scale datasets.

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Encoding UTF-8

Depends R (>= 4.0.0)

Imports methods, Matrix, data.table, Rcpp (>= 1.0.0), parallel, future, future.apply, ggplot2, ggraph, igraph, circlize, ComplexHeatmap, scales, grid, grDevices, graphics, tools, stats, utils

Suggests Seurat (>= 4.0.0), SeuratObject, SingleCellExperiment, openxlsx, ggrepel, testthat (>= 3.0.0), knitr, rmarkdown, BiocStyle

LinkingTo Rcpp, RcppArmadillo

RoxygenNote 7.3.3

VignetteBuilder knitr

URL <https://zaoqu-liu.github.io/NOVA>,
<https://github.com/Zaoqu-Liu/NOVA>

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BugReports <https://github.com/Zaoqu-Liu/NOVA/issues>

Config/testthat/edition 3

Collate 'RcppExports.R' 'NOVA-package.R' 'globals.R' 'utils.R'
'data.R' 'seurat_compat.R' 'extract_edges.R' 'diff_edges.R'
'visualization.R' 'export.R' 'zzz.R'

Config/pak/sysreqs

libfontconfig1-dev libfreetype6-dev libglpk-dev libicu-dev libpng-dev libxml2-dev perl

Repository <https://zaoqu-liu.r-universe.dev>

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RemoteUrl <https://github.com/Zaoqu-Liu/NOVA>

RemoteRef main

RemoteSha be0787f27560a647a10b0dd60365f729a69ba396