# Package 'tuberculosis'

May 1, 2025

Title Tuberculosis Gene Expression Data for Machine Learning

**Description** The tuberculosis R/Bioconductor package features tuberculosis gene expression data for machine learning. All human samples from GEO that did not come from cell lines, were not taken postmortem, and did not feature recombination have been included. The package has more than 10,000 samples from both microarray and sequencing studies that have been processed from raw data through a hyper-standardized, reproducible pipeline.

**biocViews** ExperimentHub, ExpressionData, Homo\_sapiens\_Data, MicroarrayData, SequencingData, ReproducibleResearch

**Version** 1.15.0

License Artistic-2.0

**Depends** R (>= 4.1.0), SummarizedExperiment

**Imports** AnnotationHub, ExperimentHub, S4Vectors, dplyr, magrittr, purrr, rlang, stringr, tibble, tidyr

**Suggests** BiocStyle, ggplot2, hrbrthemes, knitr, readr, rmarkdown, scater, usethis, utils

 ${\bf URL}\ {\it https://github.com/schifferl/tuberculosis}$ 

BugReports https://github.com/schifferl/tuberculosis/issues

**Encoding** UTF-8

**Roxygen** list(markdown = TRUE)

RoxygenNote 7.3.1

VignetteBuilder knitr

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#### **Description**

To find or get tuberculosis gene expression data, users will use the tuberculosis function. The dryrun argument allows users to test a query prior to returning resources. When dryrun = TRUE, the function will print the names of matching resources as a message and return them invisibly as a character vector. When dryrun = FALSE, the function will either download resources from ExperimentHub or load them from the user's local cache. If a resource has multiple creation dates, the most recent is selected by default; add a date to override this behavior.

#### Usage

```
tuberculosis(pattern, dryrun = TRUE)
```

### **Arguments**

pattern regular expression pattern to look for in the titles of resources available in tuber-

culosis; "." will return all resources

dryrun if TRUE (the default), a character vector of resource names is returned invisibly;

if FALSE, a list of resources is returned

#### Value

if dryrun = TRUE, a character vector of resource names is returned invisibly; if dryrun = FALSE, a list of resources is returned

## **Examples**

tuberculosis("GSE103147")

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