

## MultimodalExperiment Reference

| Method                               | Description   | Value                |
|--------------------------------------|---|----------------------|
| Constructors                         |   |                      |
| MultimodalExperiment                 | create a MultimodalExperiment object  | MultimodalExperiment |
| ExperimentList                       | create an ExperimentList object   | ExperimentList       |
| Slots                                |   |                      |
| experimentData                       | get or set experimentData (experiment annotations)  | DataFrame            |
| subjectData                          | get or set subjectData (subject annotations)  | DataFrame            |
| sampleData                           | get or set sampleData (sample annotations)  | DataFrame            |
| cellData                             | get or set cellData (cell annotations)  | DataFrame            |
| experimentMap                        | get or set experimentMap (experiment -> type map)   | DataFrame            |
| subjectMap                           | get or set subjectMap (subject -> experiment map)   | DataFrame            |
| sampleMap                            | get or set sampleMap (sample -> subject map)  | DataFrame            |
| cellMap                              | get or set cellMap (cell -> sample map)   | DataFrame            |
| experiments                          | get or set experiments  | ExperimentList       |
| metadata                             | get or set metadata   | list                 |
| Annotations                          |   |                      |
| joinAnnotations                      | join experimentData, subjectData, sampleData, and cellData  | DataFrame            |
| Maps                                 |   |                      |
| joinMaps                             | join experimentMap, subjectMap, sampleMap, and cellMap  | DataFrame            |
| Experiments                          |   |                      |
| experiment(ME, i)                    | get or set experiments element by index   | matrix-like          |
| experiment(ME, "name")               | get or set experiments element by name  | matrix-like          |
| bulkExperiments                      | get or set experiments element(s) where type == "bulk"  | ExperimentList       |
| singleCellExperiments                | get or set experiments element(s) where type == "single-cell"   | ExperimentList       |
| Names                                |   |                      |
| rownames                             | get or set rownames of experiments element(s)   | CharacterList        |
| colnames                             | get or set colnames of experiments element(s)   | CharacterList        |
| experimentNames<br>Subsetting        | get or set names of experiments   | character            |
| ME[i, j]                             | subset rows and/or columns of experiments   | MultimodalExperiment |
| ME[i, ]                              | i: list, List, LogicalList, IntegerList, CharacterList  | MultimodalExperiment |
| ME[, j]                              | j: list, List, LogicalList, IntegerList, CharacterList  | MultimodalExperiment |
| Coordination                         |   |                      |
| propagate                            | propagate experiment, subject, sample, and cell indices across all tables   | MultimodalExperiment |
| harmonize                            | harmonize experiment, subject, sample, and cell indices across all tables   | MultimodalExperiment |
| lucas Schiffer (2022) MultimodalExpe | lucas Schiffer (2022). MultimodalExneriment: Integrative Bulk and Sinale-Cell Experiment Container. R package version 0 99 0. |                      |

Lucas Schiffer (2022). MultimodalExperiment: Integrative Bulk and Single-Cell Experiment Container. R package version 0.99.0.