

Package ‘pubmedR’

July 23, 2025

Title Gathering Metadata About Publications, Grants, Clinical Trials
from 'PubMed' Database

Version 0.0.3

Description A set of tools to extract bibliographic content from 'PubMed' database using 'NCBI' REST API <<https://www.ncbi.nlm.nih.gov/home/develop/api/>>.

License GPL-3

URL <https://github.com/massimoaria/pubmedR>

BugReports <https://github.com/massimoaria/pubmedR/issues>

Encoding UTF-8

LazyData true

Imports rentrez, XML

Suggests bibliometrix, knitr, rmarkdown

RoxygenNote 7.1.0

VignetteBuilder knitr

NeedsCompilation no

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pmApi2df

*Convert xml PubMed bibliographic data into a dataframe***Description**

It converts PubMed data, downloaded using Entrez API, into a dataframe

Usage

```
pmApi2df(P, format = "bibliometrix")
```

Arguments

P	is a list following the xml PubMed structure, downloaded using the function pmApiRequest.
format	is a character. If format = "bibliometrix" data will be converted in the bibliometrix complatible data format. If format = "raw" data will save in a data frame without any other data editing procedure.

Value

a dataframe containing bibliographic records.

To obtain a free access to NCBI API, please visit: <https://www.ncbi.nlm.nih.gov/pmc/tools/developers/>

To obtain more information about how to write a NCBI search query, please visit: <https://pubmed.ncbi.nlm.nih.gov/help/#search-tags>

See Also

[pmApiRequest](#)

[pmQueryTotalCount](#)

Examples

```
# Example: Querying a collection of publications
```

```
query <- "bibliometric*[Title/Abstract] AND english[LA]
        AND Journal Article[PT] AND 2000:2020[DP]"
D <- pmApiRequest(query = query, limit = 100, api_key = NULL)
M <- pmApi2df(D)
```

pmApiRequest	<i>Gather bibliographic content from PubMed database using NCBI entrez APIs</i>
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Description

It gathers metadata about publications from the NCBI PubMed database. The use of NCBI PubMed APIs is entirely free, and doesn't necessary require an API key. The function pmApiRequest queries NCBI PubMed using an entrez query formulated through the function pmQueryBuild.

Usage

```
pmApiRequest(query, limit, api_key = NULL)
```

Arguments

query	is a character. It contains a search query formulated using the Entrez query language.
limit	is numeric. It indicates the max number of records to download.
api_key	is a character. It contains a valid api key API keys for the NCBI E-utilities.

Details

Official API documentation is <https://www.ncbi.nlm.nih.gov/books/NBK25500/>.

Value

a list D composed by 5 objects:

data	It is the xml-structured list containing the bibliographic metadata collection downloaded from the P
query	It a character object containing the original query formulated by the user.
query_translation	It a character object containing the query, translated by the NCBI Automatic Terms Translation syst
records_downloaded	It is an integer object indicating the total number of records downloaded and stored in "data".
total_counts	It is an integer object indicating the total number of records matching the query (stored in the "quer

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To obtain more information about how to write a NCBI search query, please visit: <https://pubmed.ncbi.nlm.nih.gov/help/#search-tags>

See Also

[pmQueryTotalCount](#)
[pmApi2df](#)

Examples

```
query <- query <- "bibliometric*[Title/Abstract] AND english[LA]
                  AND Journal Article[PT] AND 2000:2020[DP]"
D <- pmApiRequest(query = query, limit = 100, api_key = NULL)
```

pmQueryTotalCount	<i>Count the number of documents returned by a query</i>
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Description

It counts the number of documents that a query returns from the NCBI PubMed database.

Usage

```
pmQueryTotalCount(query, api_key = NULL)
```

Arguments

query	is a character. It contains a search query formulated using the Entrez query language.
api_key	is a character. It contains a valid API keys for the NCBI E-utilities. Default is api_key=NULL The use of NCBI PubMed APIs is entirely free, and doesn't necessary require an API key.

Value

a list. It contains three objects:

n	The total number of records returned by the query
query_translation	The query translation by the NCBI Automatic Terms Translation system
web_history	The web history object. The NCBI provides search history features, which is useful for dealing with large queries.

To obtain a free access to NCBI API, please visit: <https://www.ncbi.nlm.nih.gov/pmc/tools/developers/>

See Also

[pmApiRequest](#)
[pmApi2df](#)

Examples

```
query <- "bibliometric*[Title/Abstract] AND english[LA]  
        AND Journal Article[PT] AND 2000:2020[DP]"  
D <- pmQueryTotalCount(query = query, api_key = NULL)
```

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