

## PubMed Article Search by ID Instructions

### Purpose of This Module

This module is designed to fill out fields in a REDCap project based on a user entering a valid PubMed ID into a data field. This module uses the tools at <https://eutils.ncbi.nlm.nih.gov> to pull in the data in an XML format. An example of what this XML format is like can be found at the following link:

<https://eutils.ncbi.nlm.nih.gov/entrez/eutils/efetch.fcgi?db=pubmed&id=17284678&retmode=xml&rettype=medline>

Any element within the XML document that has a text value indicated within them can be referenced. The names for the elements are case sensitive, so “ArticleTitle” is not the same as “articletitle”. In the case of XML tags that appear multiple times, only the first result found in the document will be used. The module is not designed to do data validation on your REDCap fields, so make sure that you’re pointing data points to fields that will be capable of containing them.

### Module Settings

Project Settings	Value
Field with PubMed Article ID: <small>* must provide value</small>	<input type="text" value="proposal_id - Proposal"/>
1. Field Pair of PubMed Data Point to REDCap Field:	
1. Data Point in PubMed: <small>* must provide value</small>	<input type="text" value="ArticleTitle"/>
1. Field in REDCap: <small>* must provide value</small>	<input type="text" value="short_name - Short Name"/>

### Settings Explanation:

- “Field with PubMed Article ID”
  - Data field in the REDCap project that will contain the PubMed ID to pull data from. If these data points are going to fields that are on the same REDCap data form as this, they will be filled in upon clicking outside of this field. Fields on other data forms will be filled in once the record is saved.

- “Field Pair of PubMed Data Point to REDCap Field”
  - This indicates another mapping of a data point in the XML document to a field in the REDCap project. The “+” button will add another pair of fields to the module settings. The “-” button will remove the two settings directly below it from the module settings.
- “Data Point in PubMed”
  - This should be a reference to a data point in the XML document. This can also be a reference to a data point with a specific tag using a comma delimited format of “element name, tag name, tag value”.

- For instance, the following setting:

ArticleId, IdType, pubmed

Would pull the following XML element’s value:

```
<ArticleId IdType="pubmed">17284678</ArticleId>
```

- There are a few placeholder values for this field that refer to data points that may be needed, but need to be parsed in some special way. These are namely data points that require pulling in multiple XML elements together to create something meaningful. The list is:
  - Status – Grabs the value of the “Status” tag shown in the XML document at the following `<MedlineCitation Status="MEDLINE" Owner="NLM">`
  - Owner – Grabs the value of the “Owner” tag in the XML document as indicated in the ‘Status’ description above.
  - AuthorFull – Gets the full name of the first author for the article.
  - AuthorShort – Gets the Initials + Last Name of the first author for the article.
  - Grant – Combines the GrantID, Agency, and Country of the first Grant listed in the article.
  - PubDate - The full date value of the PubDate for the article in a ‘Month Year’ format.
  - DateCompleted – The full date value of the DateCompleted for the article. If this is going into a REDCap field with date validation applied, the date will be formatted to match that field.
  - DateRevised – The full date value of the DateRevised for the article. If this is going into a REDCap field with date validation applied, the date will be formatted to match that field.
  - ArticleDate - The full date value of the ArticleDate for the article. If this is going into a REDCap field with date validation applied, the date will be formatted to match that field.

- PubMedPubDate - The full date value of the PubMedPubDate for the article. If this is going into a REDCap field with date validation applied, the date will be formatted to match that field.
- “Field in REDCap” – This is the REDCap field in the project that should contain the data point from the article information.