**TIP SHEET**

**Booleans and Grouping**
Use AND, OR, and NOT and express order of operations by grouping with parentheses.

- `dsRNA AND (virus OR viri) AND NOT siRNA`

**Phrase Search**
If you want to search for a multi-word term (a "phrase") such as "polycationic peptide," place them inside of double quotes.

- "polycationic peptide" AND NOT (virus OR viri)

**Wildcards**
The `*` operator matches zero or more non-space characters, so `vaccin*` matches vaccine, vaccines, vaccinated...

**Ontologies**
As you type, IQ will offer suggested ontology entries for synonym expansion. **Pro tip:** type between double quotes to get multi-word suggestions.

**User Thesaurus**
Click any ontology entry in the search box to add or remove synonyms. Be sure to put each new phrase on a new line and enclose it in double quotes.

**Proximity Search**
Search for the occurrence of a set of words that are within k words of each other by using the kD (unordered) or kW (ordered) operator within `<>`.

- `< glycine 8D sarcosine >`

**Fuzzy Search**
Place a `%` after a term to find terms that are within one character of it.

- `einstein%
**Boosting**
Change the order in which documents are returned (but not the set of documents itself) by increasing the relevance of specific terms via the `^k` operator. Modify the value of k to bring relevant documents to the top.

- `tamoxifen or trastuzumab^2`

**Hit? for a pop-up of all available fields, then click a field to search within it.**

- `"carbonyl sulfide" AND Title: mycobacterium`

  Carbonyl sulfide anywhere in the document, but *mycobacterium* must appear in the title.

  - Either the term dsRNA or the term siRNA must appear in the claims. Note the use of parenthesis to group the boolean expression and constrain it to the Claims field.

- `Abstract: ((dsRNA OR siRNA) AND (virus OR viri))`

  A more advanced demonstration of complex boolean queries constrained to a field. The entire query is on the Abstract field.

- `Description: glucopyran* AND Claims: GLP?

  Searching the Description and Claims field at the same time. Note that wildcard operators are perfectly legal.

- `Names: < Robert 3D Langer >`

  Ontologies can be used in field constrained queries, as can lists from your User Thesaurus.

- `Abstract: ("recombinant heparin^3 OR protease)`

  Proximity search works within field-constrained searches using the same syntax. The Names field is an aggregate field that searches Applicants, Assignees, and Inventors.

- `Full Text: (drought tolerance OR "drought recovery") AND CPC: "A01N63/00" AND Legal Status: grant%`

  See the difference between these two boosted Abstract searches? The first allows for the term protease to be found anywhere in the document, while the second constrains it to the Abstract.

**Date and Numeric Ranges**

- **Publication Date:** 2010-01-01
- **Filing Date:** 1976-07-04 TO now
- **Nucleotide Sequence Count:** 100 TO *

Type a date in YYYYMMDD format - it autoformats to look like the above if you’ve done it right.

- `Publication Date: 2010·01·01`

There’s no limit to how complex your queries can be. In the above example, we are searching for documents in CPC Class A01N63/00 that relate to the ontology term drought tolerance or the phrase drought recovery anywhere in the full text, with drought recovery being twice as relevant. The legal status of the documents should be grant but with the % fuzzy search operator we allow for minor misspellings of that word.