Find targets that are associated with new biomarkers

Could emerging disease biomarkers represent novel drug targets?

Biomarker Module of Clarivate Analytics Integrity enables you to find recently added biomarkers associated with your disease of interest and quickly verify whether they are known drug targets. **Example Scenario:** you want to see up-to-date information related to biomarkers associated with Crohn’s Disease and investigate which, if any, are established drug targets.

**Find recently added biomarkers related to a specific disease:**

### Step-by-Step Guide

1. **To find recently added biomarkers related to a specific disease,** go to the **Biomarkers** knowledge area.

2. **Click Select Value** in the Biomarker section and choose **Indication -> Condition** from the dropdown menu.

3. **Click Index** to the right of this field.

4. In the pop up window that appears, type “crohn” into the text box on the left side of the window and click **Lookup.** Select **Crohn’s disease** in red on the right-hand side of the window.

5. **Tip:** You can click **Order Alphabetically** once you’ve searched for the term in an index to see all the results as an alphabetic list. You can then select multiple items on this list to be used as search terms.

6. Next, **click Optional Value** in the **Biomarker** section and choose **Available Since** from the dropdown menu.

7. **Click Index** to the right of this field to see the date format used in **Integrity.** In the search form, type “from 20170101” to retrieve biomarker records added to the database since January 1st, 2017.

8. Now with both fields entered, click the **Start** button at the top of the page to begin the search.

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**Tip:** Integrity includes multi-markers, such as gene signatures or protein panels, where a combination of components is used as biomarker. You can exclude multi-markers from your search results by selecting **Combination Biomarker (Y/N)** from the menu of optional values and typing “n” (for “No”) into the search form.

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Clarivate Analytics Integrity
Working with your data:

Biomarkers search results are presented in a summary Biomarker Table showing the number of uses at each Validity phase, grouped by Major Condition. To see more details, click on the Options menu and select Biomarker List.

The Biomarker List view shows more details about each biomarker use, including the breakdown of source references and patents. References can be supporting, conflicting or equivocal, depending on the evidence they contain.

Tip:
- You can find full definitions for validity phases, source evidence and other fields in the Biomarker Frequently Asked Questions (FAQs) document. There is a link to the FAQs from the Learning Center panel, located on the bottom left corner of the Integrity homepage or from the Biomarkers Advanced Search page by clicking the link in the left-hand column.

Filter by Source Evidence and click on the bar for “at least 1 + source” to include only those results where a significant association (p<0.05) has been found between biomarker and condition in at least one published reference.

Verifying which biomarkers are known drug targets:

To review further information associated with these biomarkers, you can open the Options pull down menu and click All Related Information via Quick Search. The display will then allow you to view the information related to your Biomarkers results in the other Knowledge Areas of Integrity.

If any of the biomarkers is a known drug target the display will show related Targets&Pathways records which can be explored to find details of related drugs, the conditions (diseases or disorders) those drugs are intended to treat, their developmental status, which organizations are involved, etc.

If you have any questions please contact us at: DTStraining@clarivate.com
In this example, there are no related **Targets & Pathways** records, suggesting that the new biomarkers present potential white space for further investigation.

To be notified of any new biomarkers that match your search query, open **Options** pulldown menu and click **Save Query**. Fill in the pop up box to choose the frequency of e-mail updates.

**Tip:**

- Using **All Related Information via Quick Search** from the Biomarker Table or Biomarker List display will retrieve all information related to the full biomarker records, including all their uses.

To retrieve only the information related to a specific subset of biomarker uses, open the **Options** pull-down menu and click **Biomarker Use Record** to change the display. Now when you click on **All Related Information via Quick Search** from the Biomarker Use Record display, the results will be directly relevant to only those Biomarker Use Records, for example:

  - **Literature**: generate a highly relevant reading list which can be exported to reference management software.
  - **Patents**: see which organizations are patenting a biomarker use, potentially as a future Companion Diagnostic.
  - **Drugs & Biologics**: explore drugs used in biomarker studies to see their mechanism of action, development status, which organizations are involved etc.
  - **Clinical Studies**: read specially written summaries of the outcomes of drug trials.