Dimensions | LIFE SCIENCES & CHEMISTRY

Give your Targeted Protein Degradation research the winning edge

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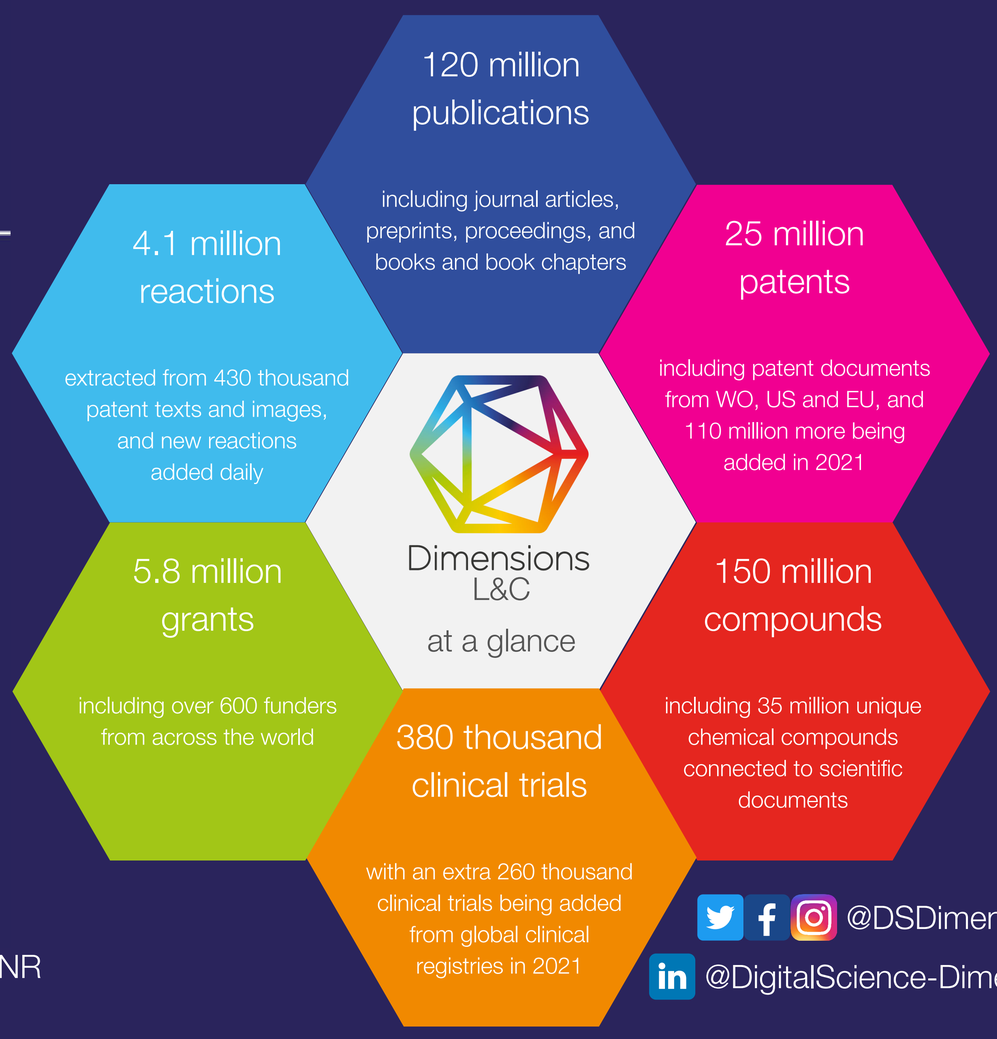

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ABSTRACT

Dimensions L&C applies the latest semantic analysis tools and ontologies on over 120 million scientific publications, as well as millions of patents, grants and clinical trial documents, to create a unique tool for scientists that offers powerful discovery functionality on a new scale. It enables a large variety of possible applications and use cases across targeted protein degradation research, from identification of the E3 ubiquitin ligases for a target protein of interest to discovery of relevant chemical structures connected to E3 ubiquitin ligases/ targets of interest.

Generate hypotheses

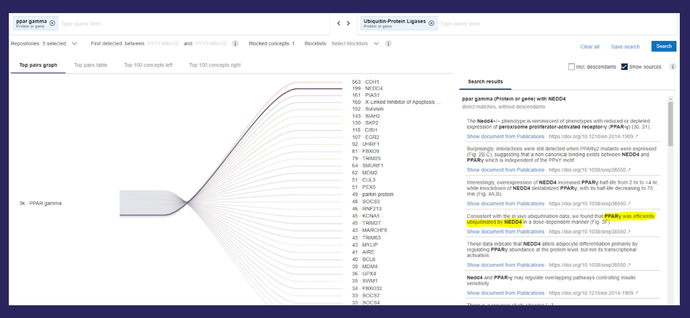
In the past, literature search tools required the user to know exactly what they wanted to find – to narrow the search down to results about specific relationships between compounds and diseases for example, and confirm or invalidate pre-defined hypotheses. Dimensions L&C uses ontologies which include around 40 million concepts and 100 million synonyms, enabling the user to move from the discovery of scientific documents to hypothesis generation.

Get answers to complex and diverse queries

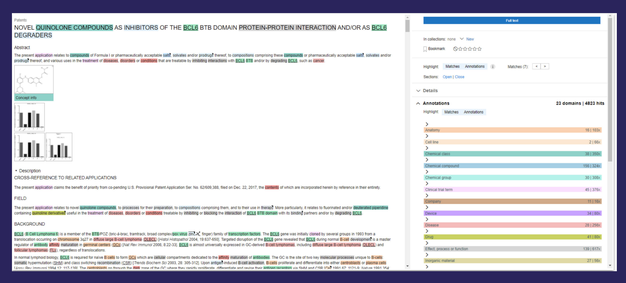
Unlike traditional manually curated databases, Dimensions L&C uses the insights systematically captured in ontologies and computational power to quickly get answers to complex and diverse queries directly from the source content. This enables possible applications and use cases in the area of protein/gene-drug-disease interactions, validation of biomarkers, searching for small molecules, chemical reactions and gene sequences.

Gain deeper insights

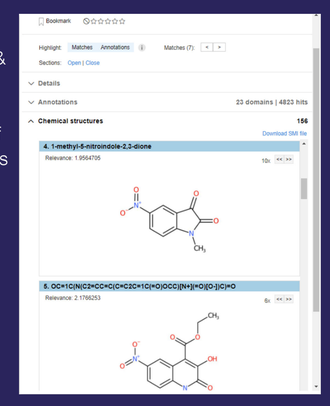
Identify relevant documents and gain deeper insights through semantic analysis and chemistry & sequences search on our enriched data. Dimensions L&C uses data derived from over 120 million publications, which are contextualized with linked grants, publications, patents and clinical trials.



When two terms are mentioned often in close textual proximity, this usually means that the two terms are connected with each other. With Co-Occurrence Analysis you can bring to the surface connected semantic concepts analysing hundreds of millions of documents within seconds.



Full texts are indexed with semantic concepts from 23 knowledge domains, such as diseases, genes & proteins, cellular processes, compounds and drugs, together with information on the frequency of their occurrence in the document, as well as their positions in the text. Chemical structures are also extracted from texts and figures. This enables you to speed up analysis of the document and gain desirable insights quickly.



Powerful semantic search using ontologies related to Life Sciences and Chemistry

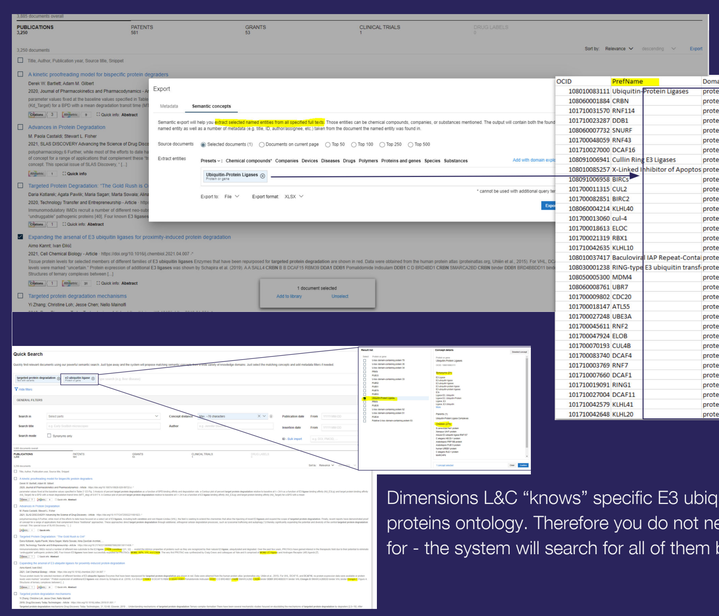
Dimensions L&C ontologies contain 40M concepts with 100M synonyms covering 23 knowledge domains

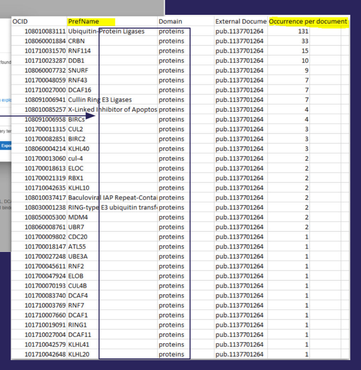
Alerts for "new" E3 ubiquitin ligases for your PROTACs

Get a comprehensive list of scientific documents where any E3 ubiquitin ligase is mentioned in the context of Targeted Protein Degradation

Gain actionable insights on E3 ubiquitin ligases in a couple of clicks

Which ligases are discussed in full texts of publications and other scientific documents?





Exporting of semantic concepts, like E3 ubiquitin ligases, is a powerful functionality which enables you to derive specific concepts of interest from the full text of documents and analyse how often a specific concept, for example, an E3 ubiquitin ligase of your interest, is mentioned in the document.

Dimensions L&C "knows" specific E3 ubiquitin ligases. They are part of the genes and proteins ontology. Therefore you do not need to specify which ligases you are looking for - the system will search for all of them by the "E3 ubiquitin ligase" concept.

Use Co-Occurrence Analysis to discover hidden connections

Find specific E3 ubiquitin ligases for target proteins, and identify which compounds are known to bind to or modulate activity of an E3 ubiquitin ligase

Expand your breadth of knowledge with our chemistry search

Identify similar structures of relevant compounds, or compounds with specific substructures, and all related scientific documents using our chemistry search

Chemistry Search in Dimensions L&C allows you to find chemical compounds in our chemistry registry by searching for names, registry numbers, SMILES, etc., or by simply drawing the structure. You can discover relevant compounds in different ways, for example, by using substructure search, similarity search, or full match. Additionally with Chemistry Search you can identify chemical reactions related to compounds of your interest described in patents.

Generate insights quickly with semantic analysis of scientific documents

Gather information on reported biological activities, therapeutic applications, and so much more

Request a demo

Find out more about Dimensions Life Science and Chemistry

Get to know the whole Dimensions Family

Dimensions Analytics

Understanding research: All about research institutions, researcher, citations

Dimensions Life Sciences & Chemistry NEW

L&C

Driven by specific ontologies to support industry specific use cases

Interactive custom dashboards and professional services

APP

Leverage unique dashboard solutions customized according to your requirements. Get expert support to help gain deeper insights and answer specific questions