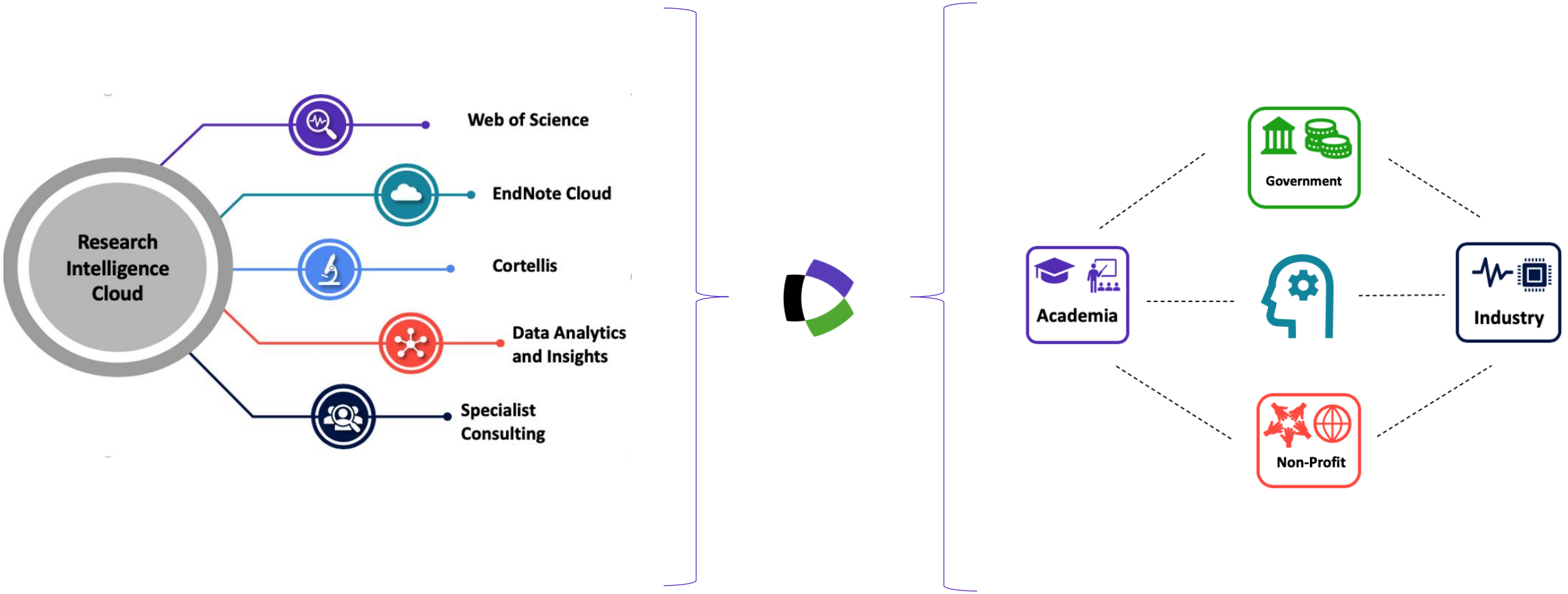
Clarivate
Web of Science™

Clarivate în ciclul de viață al inovației

Adriana FILIP - Solutions Consultant
adriana.filip@clarivate.com

Decembrie 2020

Accelerating innovation by connecting researchers, funders, industry and society through a researcher-centric network



Clarivate delivers trusted insights and analytics to accelerate the pace of innovation

Clarivate Web of Science™ | Clarivate Cortellis™ | Clarivate Derwent™ | Clarivate MarkMonitor™ | CPA GLOBAL Part of Clarivate | DRG Part of Clarivate

Our mission

We are a trusted, indispensable partner to innovators everywhere delivering critical data, information, workflow solutions and deep domain expertise.

Our purpose

We believe human ingenuity can transform the world and improve our future.

Our vision

We will improve the way the world creates, protects and advances innovation.

How does Web of Science help you accelerate your research

Web of Science today

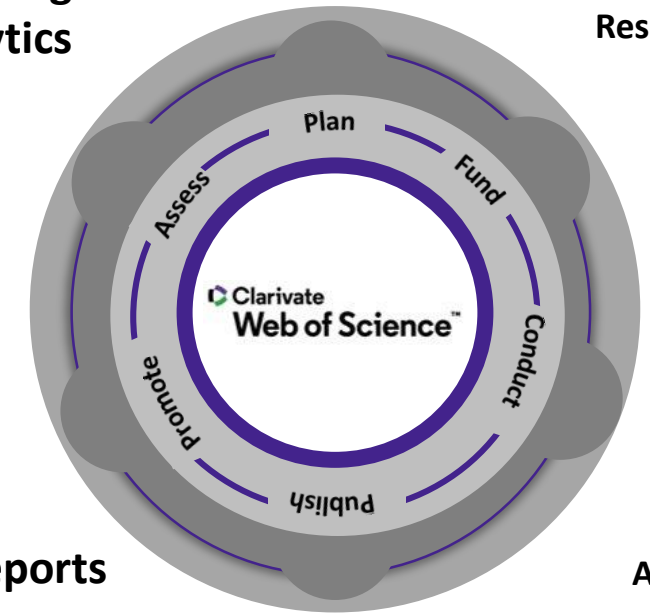
Consultancy

InCites Benchmarking & Analytics

Essential Science Indicators
Research Fronts

Converis

Reviewer Connect



VIVO Services

Web of Science™

Publons

XML Dataset

Journal Citation Reports

APIs

isi | Institute for Scientific Information

EndNote™

Web of Science
Author Connect

ScholarOne

- Understand the research landscape with the world's largest curated citation network of research publications
- Make confident strategic decisions using unbiased data curated by publisher-neutral experts
- Uncover hidden opportunities with consistent, accurate and complete metadata for authors, author affiliations, and funders
- Research more efficiently using tools that find PDFs for you throughout your search process and automatically write your bibliography
- Conduct more responsible research evaluation using multidimensional profiles and ISI's objective guidance

Clarivate™

Case Study

Genomic Engineering
The CRISPR/Cas9 DNA segment

Search Web of Science

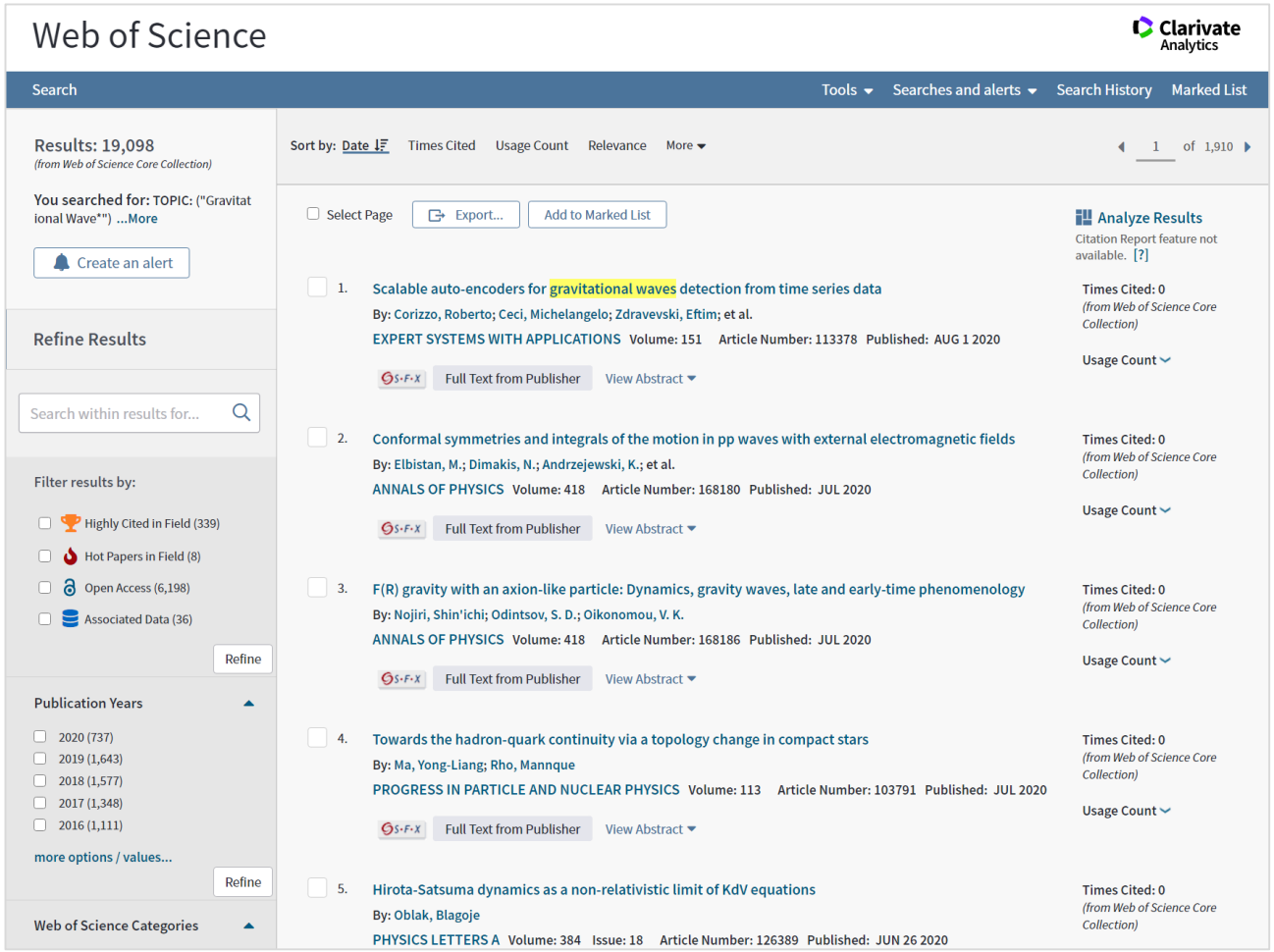
Search Web of Science to track ideas across disciplines and time from over 1.7 billion cited references from over 171 million records.

*With **Web of Science Core Collection** search the top journals, conference proceedings, and books in the sciences, social sciences, and arts and humanities to find the high quality research most relevant to your area of interest.*

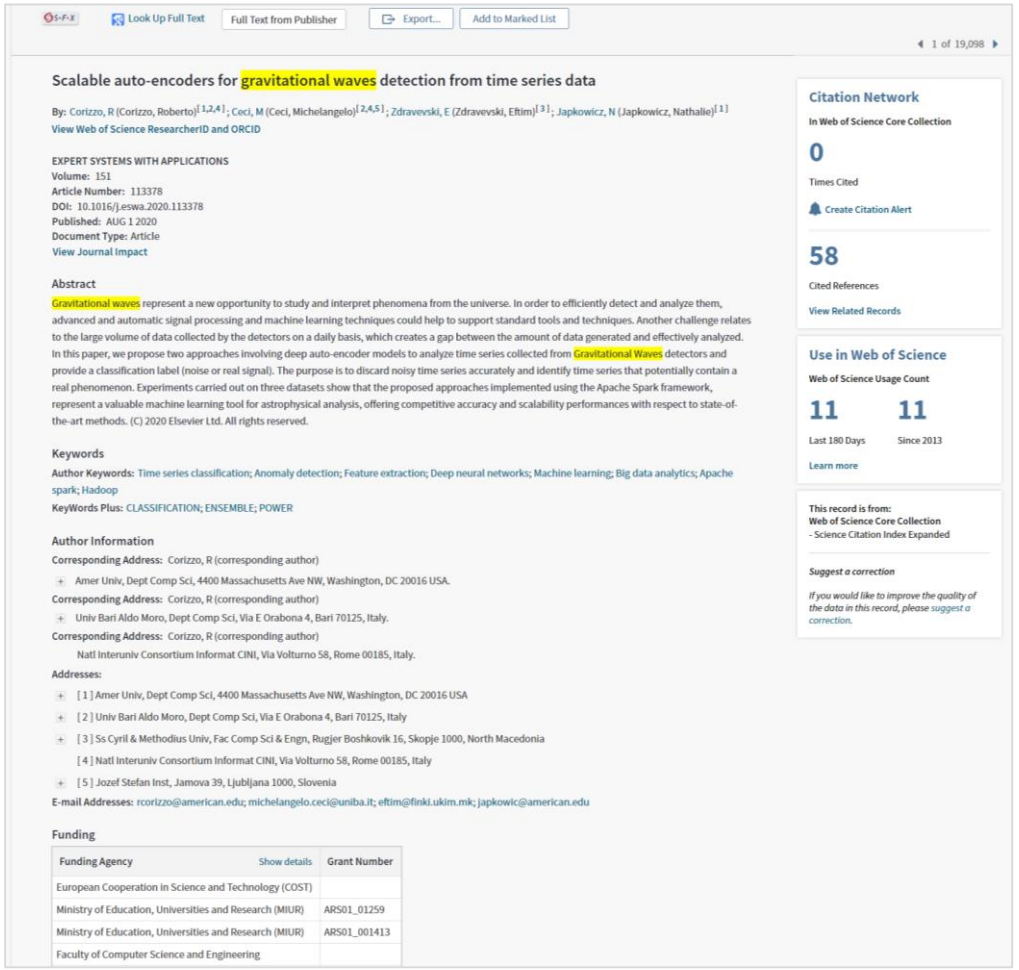
Search Rules →
Search Operators →
Sort Options →
Wildcards →

Search Web of Science

See the results of your search



View the full record



Topic Search

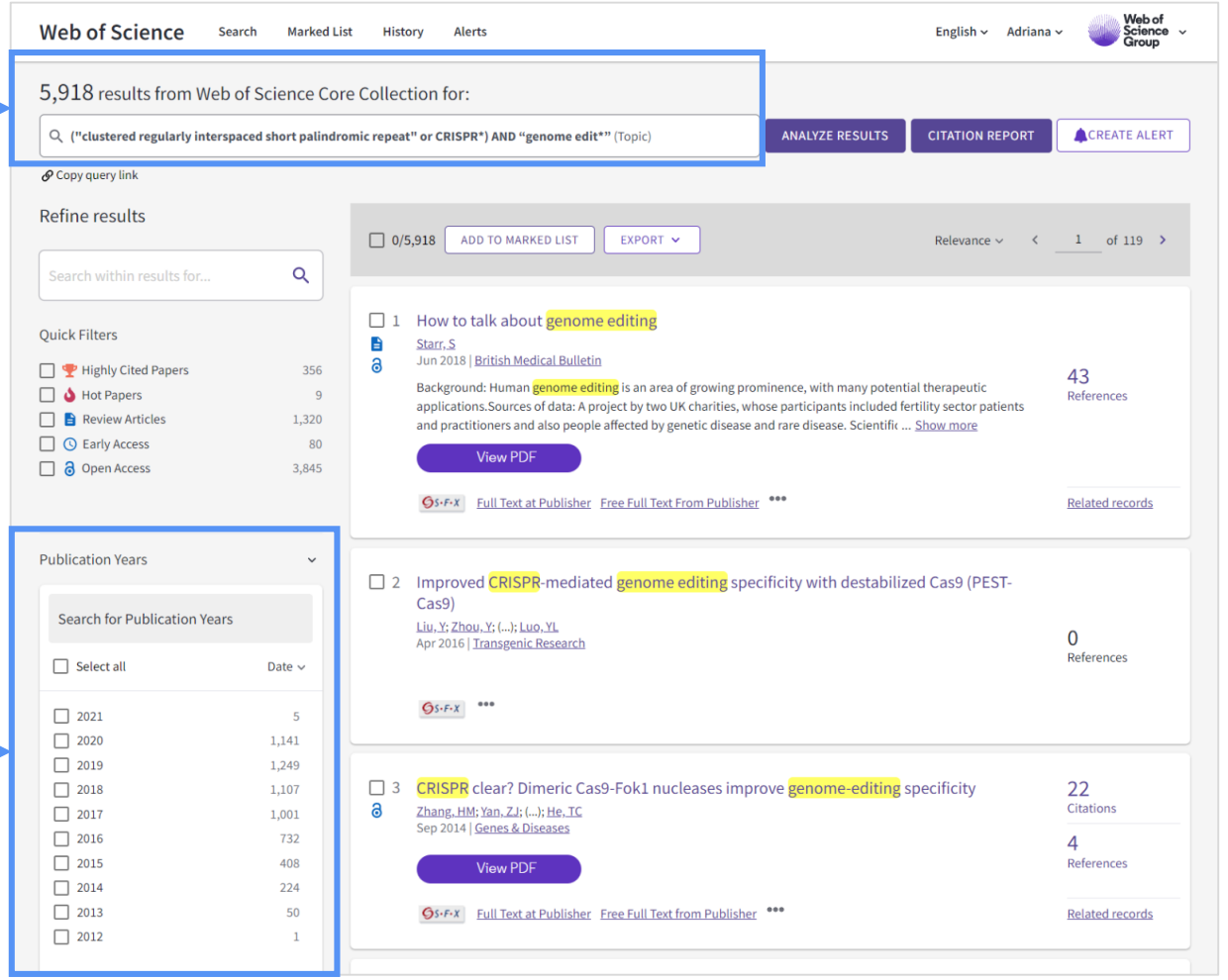
TS=(("clustered regularly interspaced short palindromic repeat" or CRISPR*) AND “genome edit*”)

Enter Topic terms to search the following fields within a record.

- Title
- Abstract
- Author Keywords
- Keywords Plus®

5,918 unique records found in Web of Science Core Collection

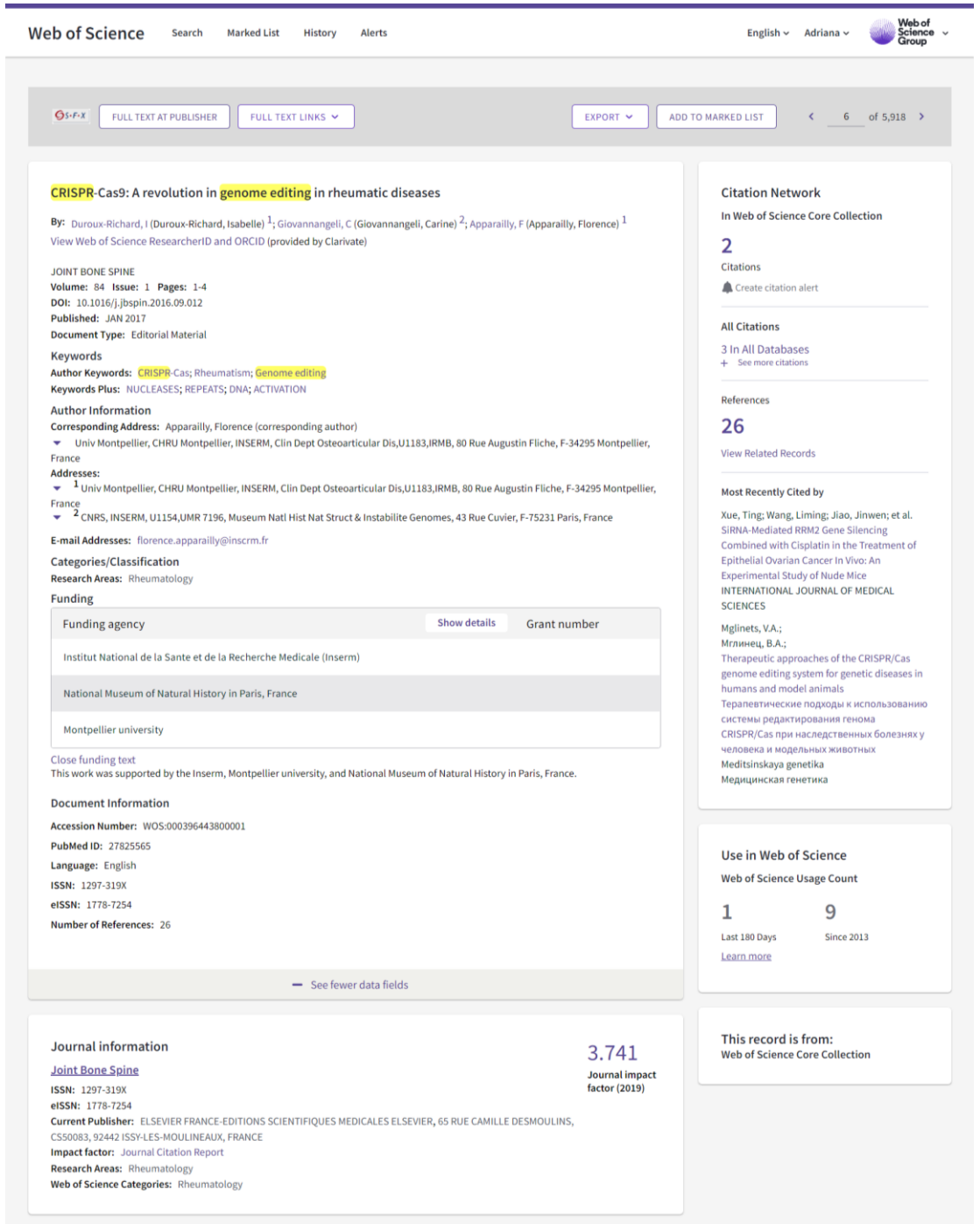
First paper published in 2012



Topic Search

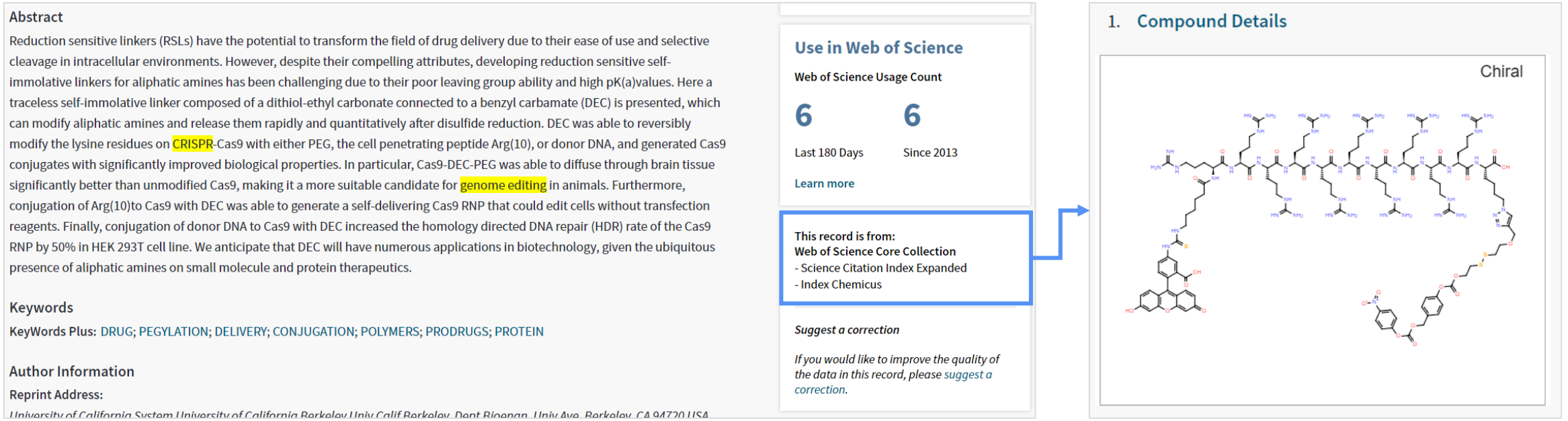
Search and discover CRISPR papers using valuable curated and enriched metadata

- Abstract
- Keywords
- Author Information
- Funding
- Document Information
- Journal Information
- Citation Network



Clarivate™

Discover additional records in the *Index Chemicus* and the *Current Chemical Reactions*



Abstract

Reduction sensitive linkers (RSLs) have the potential to transform the field of drug delivery due to their ease of use and selective cleavage in intracellular environments. However, despite their compelling attributes, developing reduction sensitive self-immolative linkers for aliphatic amines has been challenging due to their poor leaving group ability and high pK(a)values. Here a traceless self-immolative linker composed of a dithiol-ethyl carbonate connected to a benzyl carbamate (DEC) is presented, which can modify aliphatic amines and release them rapidly and quantitatively after disulfide reduction. DEC was able to reversibly modify the lysine residues on CRISPR-Cas9 with either PEG, the cell penetrating peptide Arg(10), or donor DNA, and generated Cas9 conjugates with significantly improved biological properties. In particular, Cas9-DEC-PEG was able to diffuse through brain tissue significantly better than unmodified Cas9, making it a more suitable candidate for genome editing in animals. Furthermore, conjugation of Arg(10)to Cas9 with DEC was able to generate a self-delivering Cas9 RNP that could edit cells without transfection reagents. Finally, conjugation of donor DNA to Cas9 with DEC increased the homology directed DNA repair (HDR) rate of the Cas9 RNP by 50% in HEK 293T cell line. We anticipate that DEC will have numerous applications in biotechnology, given the ubiquitous presence of aliphatic amines on small molecule and protein therapeutics.

Keywords

KeyWords Plus: DRUG; PEGYLATION; DELIVERY; CONJUGATION; POLYMERS; PRODRUGS; PROTEIN

Author Information

Reprint Address:

University of California System University of California Berkeley Univ Calif Berkeley, Dept Bioengn, Univ Ave, Berkeley, CA 94720 USA

Use in Web of Science

Web of Science Usage Count

6 Last 180 Days

6 Since 2013

Learn more

This record is from:
Web of Science Core Collection
- Science Citation Index Expanded
- Index Chemicus

Suggest a correction

If you would like to improve the quality of the data in this record, please suggest a correction.

1. Compound Details

Chiral

Compounds | If the record was retrieved from **Index Chemicus**, new compounds reported in the article are listed below the bibliographic record.

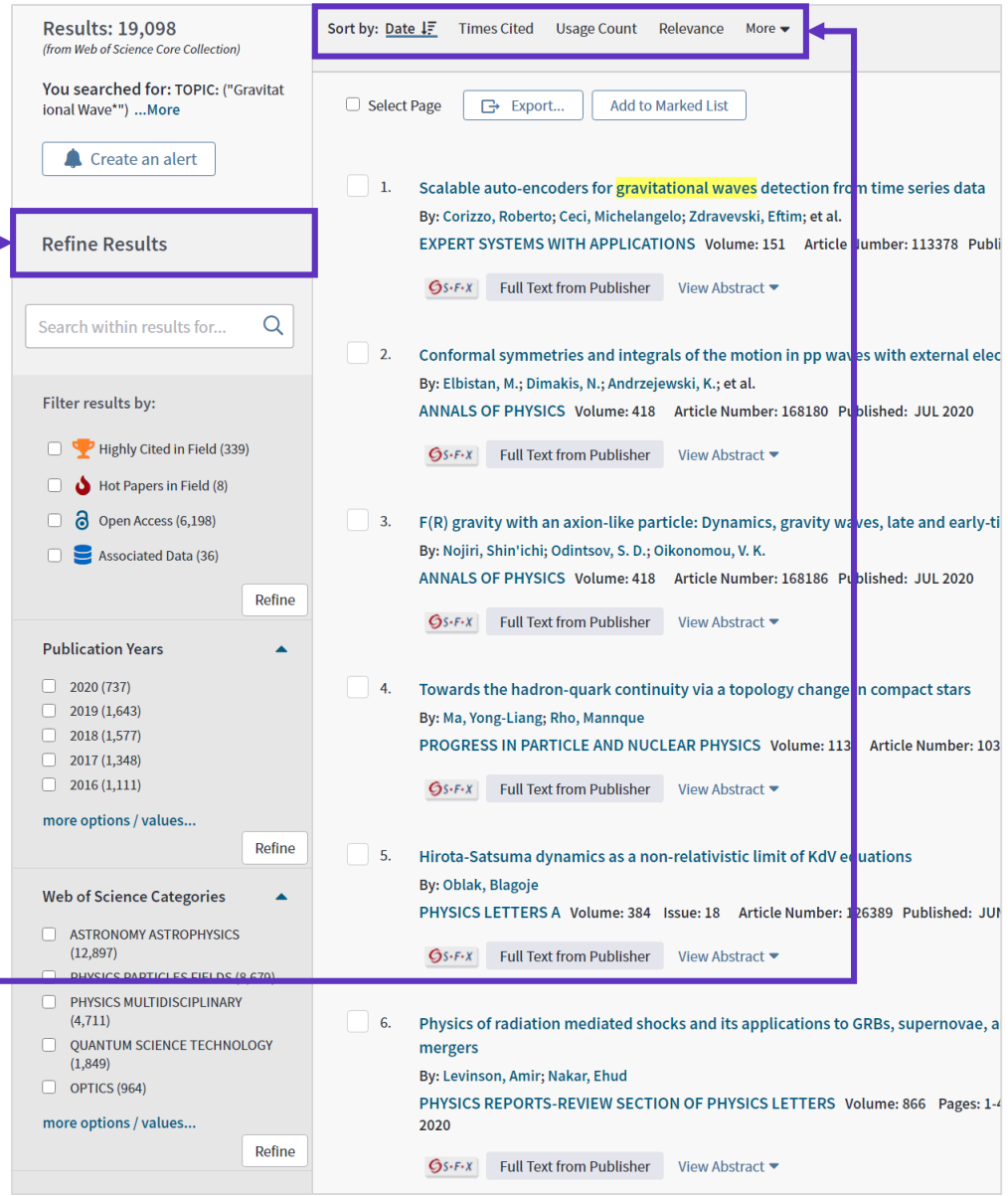
Reactions | If the record was retrieved from **Current Chemical Reactions**, reactions from each new synthetic method reported in the source article are listed below the bibliographic record.

Refine the Results

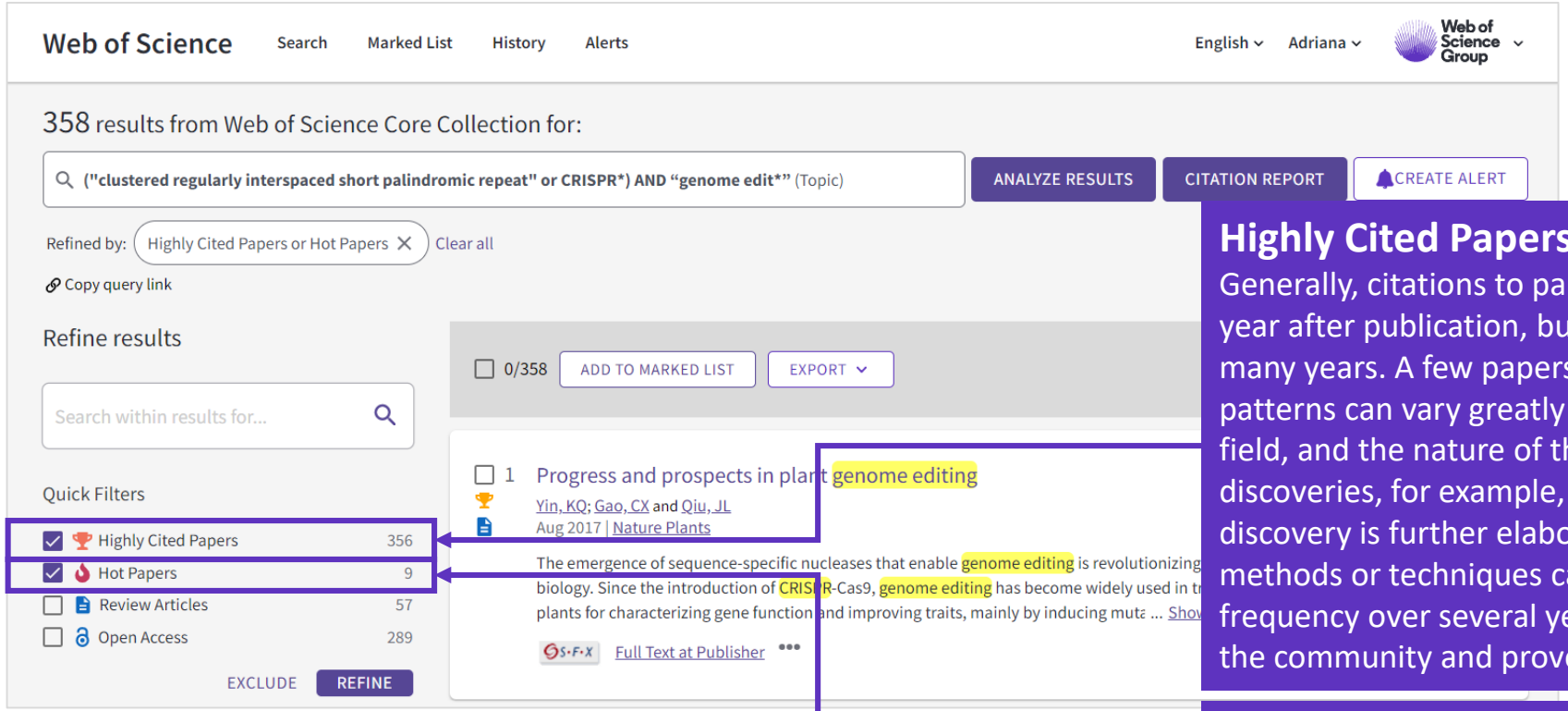
Narrow the results of your search by using any of the **Refine Results** options :

- Web of Science Categories
- Document Types
- Publication Years
- Organization-Enhanced
- Source Titles
- Funding Agencies
- Open Access
- And more!

You can then also choose how to **Sort** your results by newest, most cited, recently added, relevance, etc.



Identify Top Papers



Highly Cited Papers

Generally, citations to papers peak in the second, third, or fourth year after publication, but some papers continue to be cited for many years. A few papers can exhibit delayed recognition. The patterns can vary greatly depending on the type of paper, the field, and the nature of the finding reported. Papers reporting discoveries, for example, can rise quickly and then fall as the discovery is further elaborated in other articles. Papers reporting methods or techniques can gradually increase in citation frequency over several years as the methods diffuse throughout the community and prove their utility.

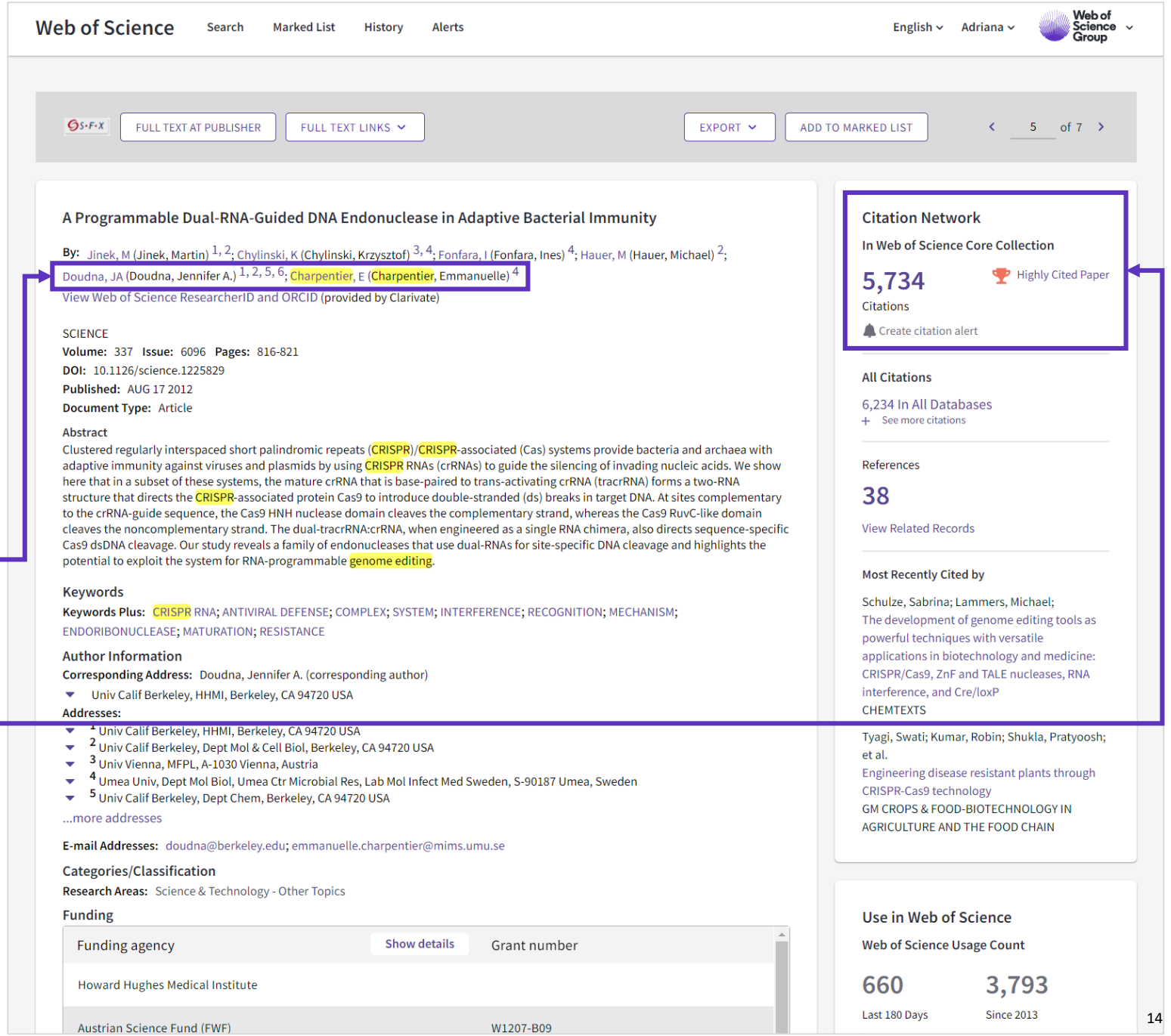
Hot Papers

Papers generally reach their citation peak two, three, or four years after publication. A small group of papers, however, are recognized very soon after publication, reflected by rapid and significant numbers of citations. These papers are often key papers in their fields and are referred to as hot papers.

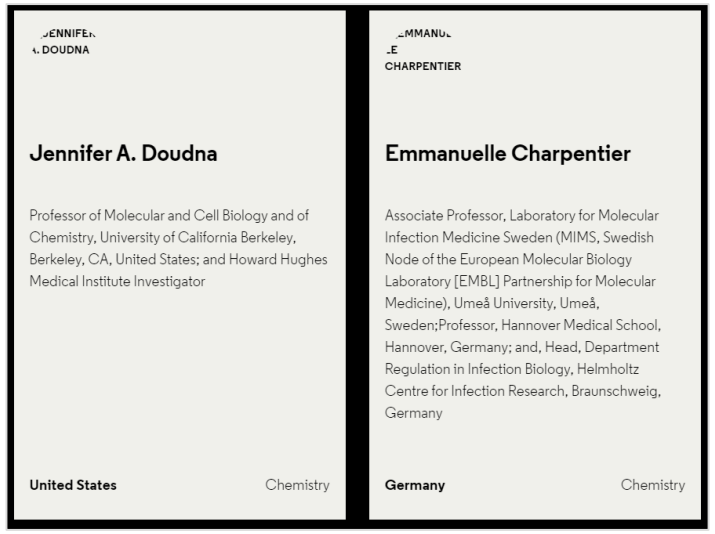
Identify Top Papers

Emmanuelle Charpentier and Jennifer Doudna share the **2020 Nobel chemistry prize** for developing the precise genome-editing technology.

Highly Cited Paper published in 2012.



Citation Laureates



Successful predictions by Nobel Prize winners: since 2002, our analysis has identified 59 scientists who have won the Nobel Prize.

Jennifer A. Doudna – Facts – 2020. NobelPrize.org. Nobel Media AB 2020. Wed. 2 Dec 2020. https://www.nobelprize.org/prizes/chemistry/2020/doudna/facts/

Emmanuelle Charpentier – Facts – 2020. NobelPrize.org. Nobel Media AB 2020. Wed. 2 Dec 2020. https://www.nobelprize.org/prizes/chemistry/2020/charpentier/facts/

Jennifer A. Doudna
Facts

© Nobel Media. Ill. Niklas Elmehed.

Jennifer A. Doudna
The Nobel Prize in Chemistry 2020

Born: 19 February 1964, Washington, DC, USA

Affiliation at the time of the award: University of California, Berkeley, CA, USA

Prize motivation: "for the development of a method for genome editing."

Prize share: 1/2

Emmanuelle Charpentier
Facts

© Nobel Media. Ill. Niklas Elmehed.

Emmanuelle Charpentier
The Nobel Prize in Chemistry 2020

Born: 11 December 1968, Juvisy-sur-Orge, France

Affiliation at the time of the award: Max Planck Unit for the Science of Pathogens, Berlin, Germany

Prize motivation: "for the development of a method for genome editing."

Prize share: 1/2

Researcher Recognition

https://clarivate.com/webofsciencegroup/solutions/researcher-recognition/

recognition.webofscience.com/awards/highly-cited/2020/

clarivate.com/webofsciencegroup/citation-laureates/

clarivate.com/webofsciencegroup/eugene-garfield-award-2020/

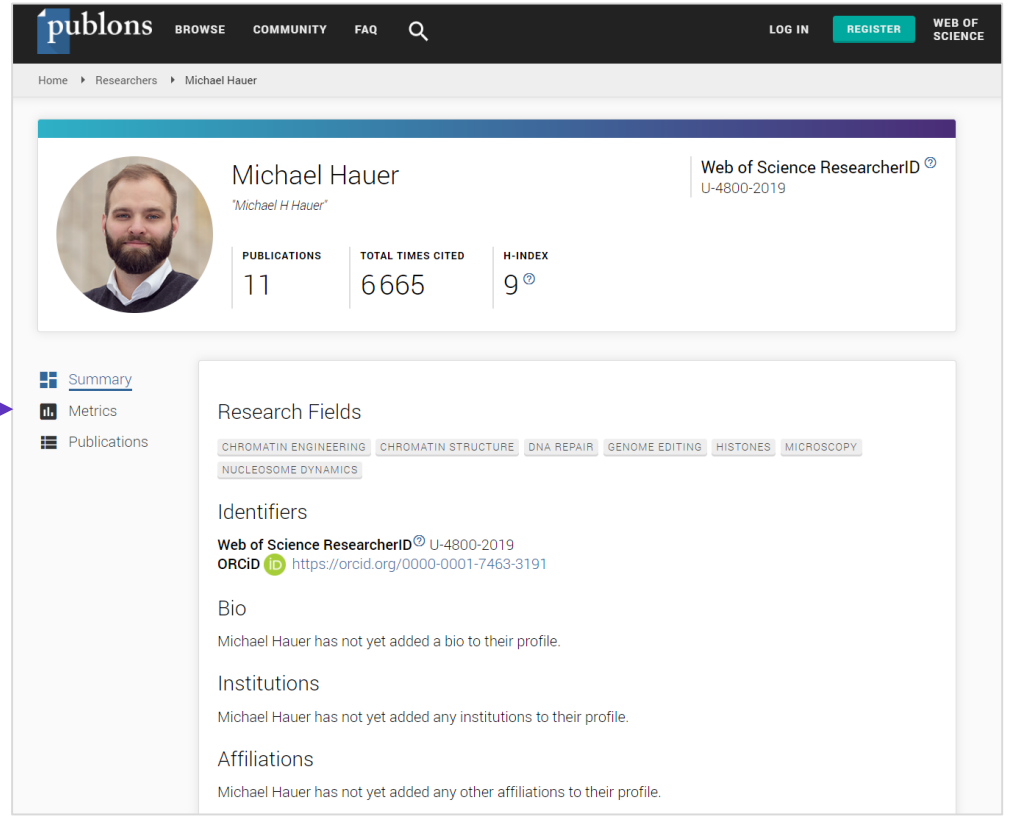
Identify Top Researchers

A Programmable Dual-RNA-Guided DNA Endonuclease in Adaptive Bacterial Immunity

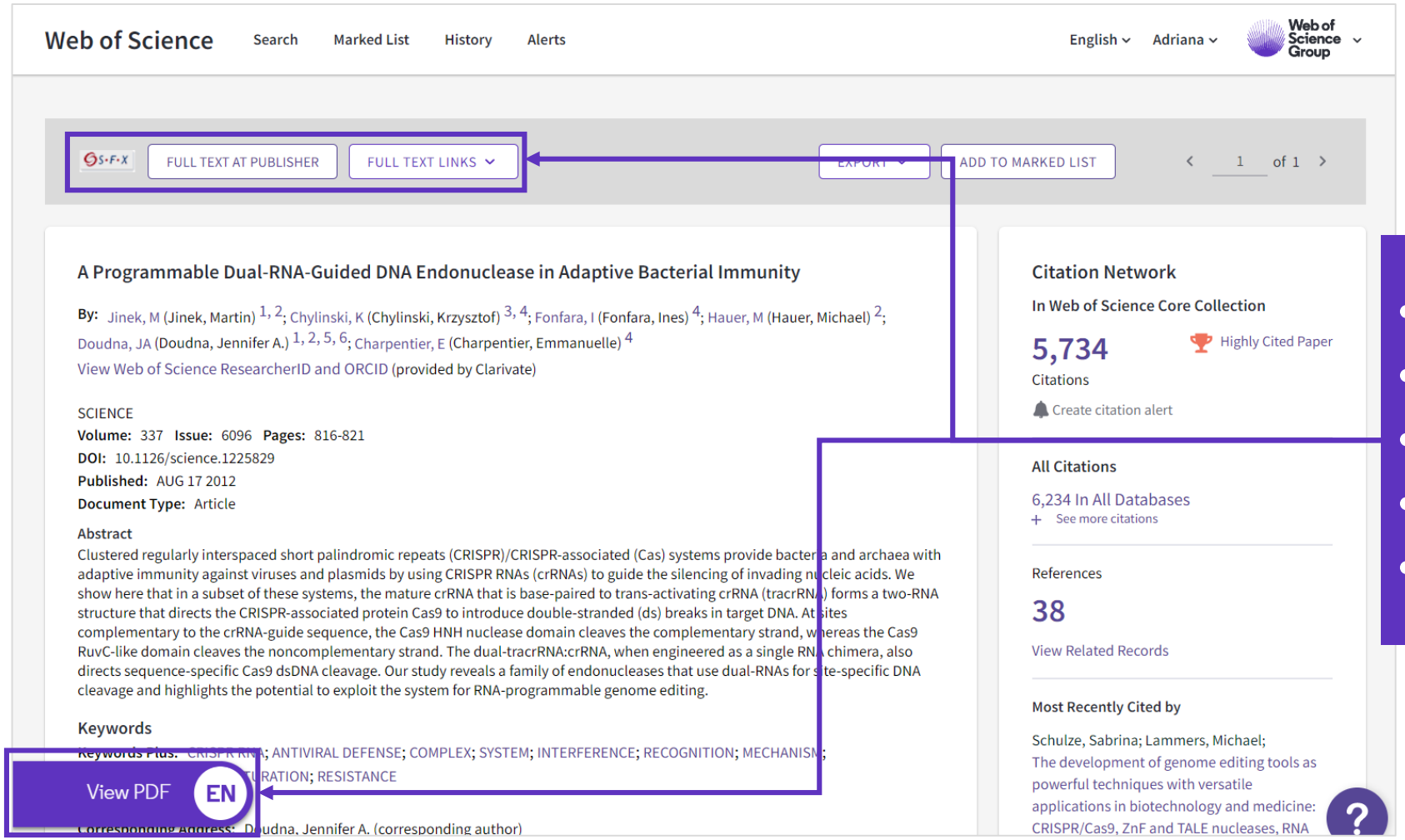
By: Jinek, M (Jinek, Martin) [1, 2]; Chylinski, K (Chylinski, Krzysztof) [3, 4]; Fonfara, I (Fonfara, Ines) [4]; Hauer, M (Hauer, Michael) [2]; Doudna, JA (Doudna, Jennifer A.) [1, 2, 5, 6]; Charpentier, E (Charpentier, Emmanuelle) [4]

Hide Web of Science ResearcherID and ORCID (provided by Clarivate)

Author	Web of Science ResearcherID	ORCID Number
Fonfara, Ines	S-8369-2018	http://orcid.org/0000-0003-4075-9217
Hauer, Michael	U-4800-2019	
Jinek, Martin	E-6621-2011	http://orcid.org/0000-0002-7601-210X
Chylinski, Krzysztof		http://orcid.org/0000-0001-7029-8090
Hauer, Michael		http://orcid.org/0000-0001-7463-3191

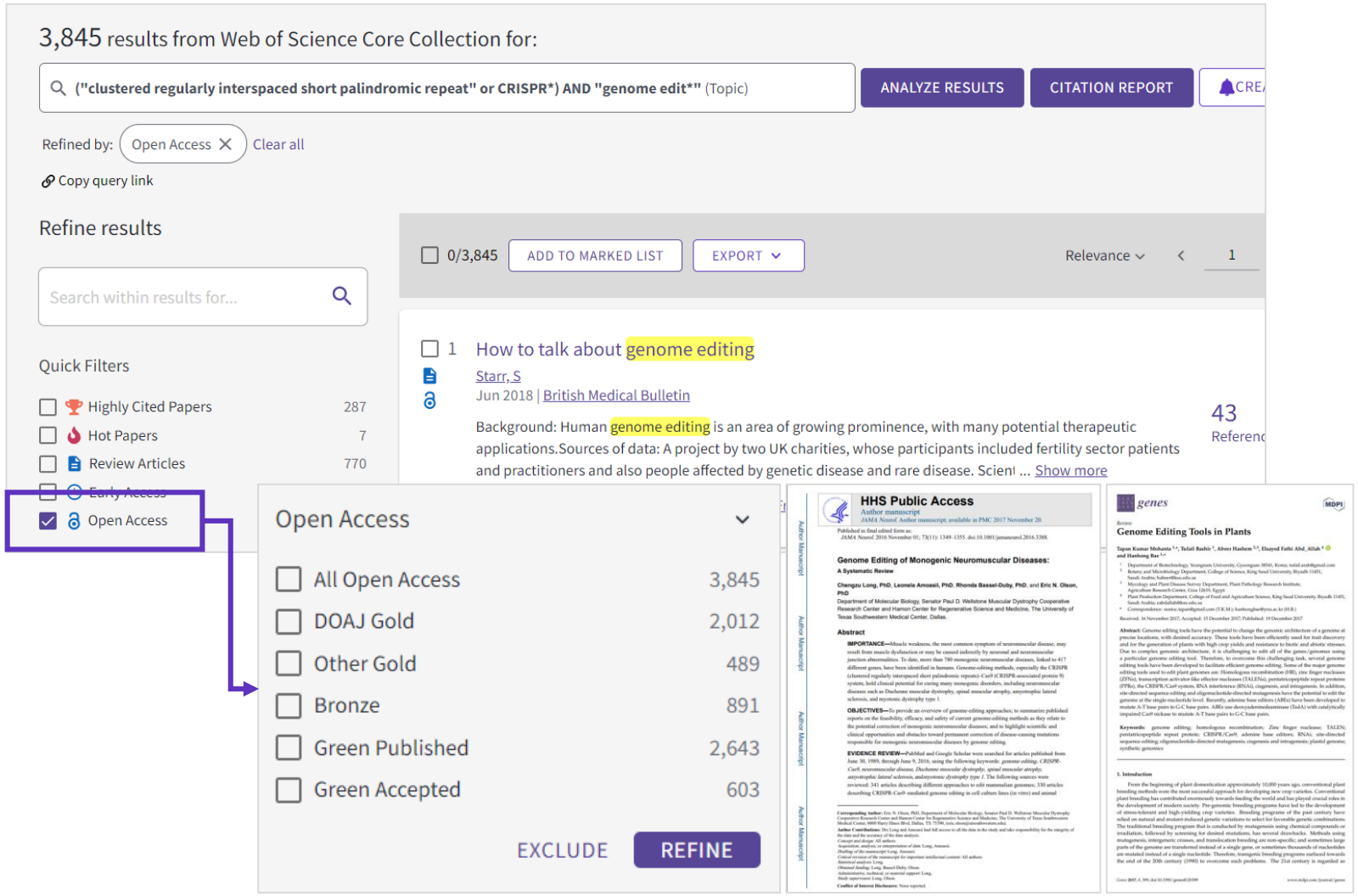


Access the Full text



- OPEN URL LINKS
- OPEN ACCESS
- GOOGLE SCHOLAR
- PUBLISHER WEBSITE
- ENDNOTE CLICK

Discover Open Access papers

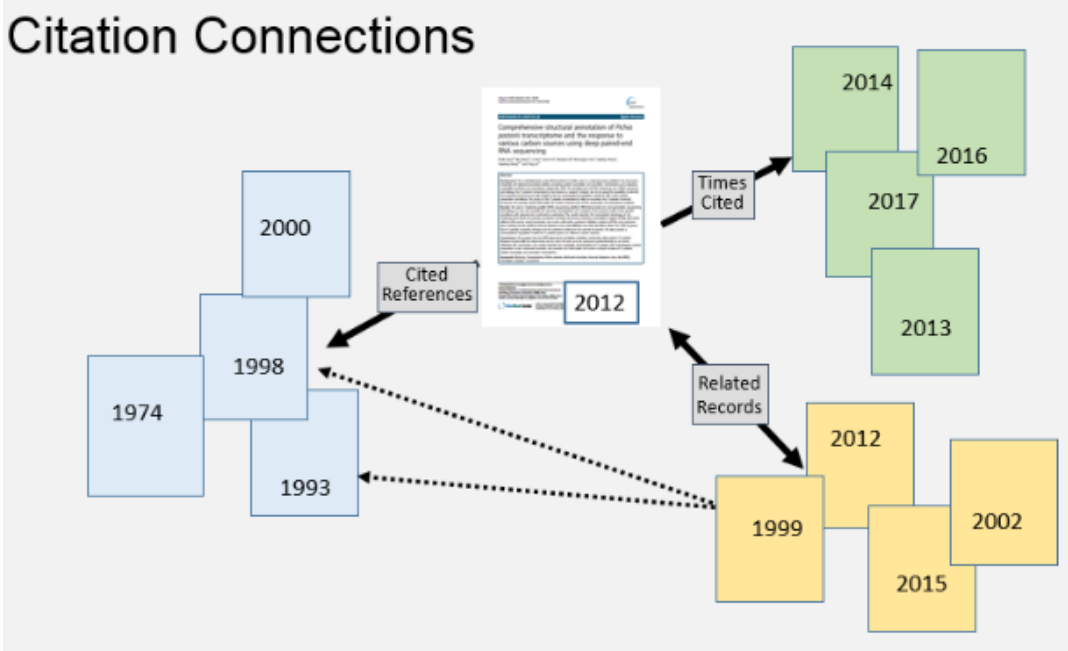


Open Access identification for all OA versions and direct links to full text.

Use EndNote Click (formerly Kopernio) to access the full text

Explore the Citation Network

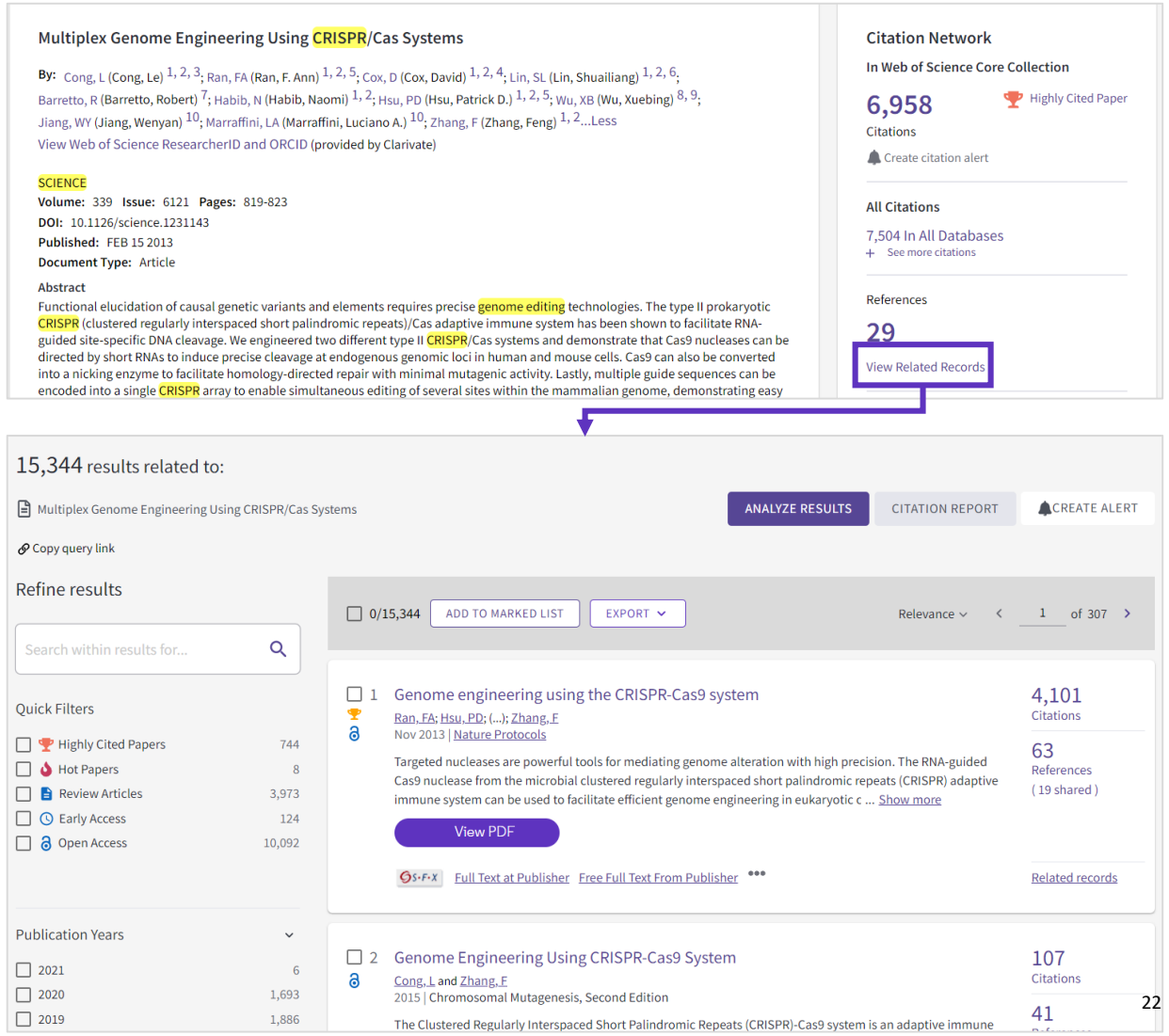
- **Cites References** – the research that a paper cites (all cited reference are captured, regardless whether they are part of the index or not)
- **Times Cited** – more recently published papers that cite the paper
- **Related Records** – papers which share at least one cited reference in common with the paper (if they share citations, they're likely discussing similar topics).



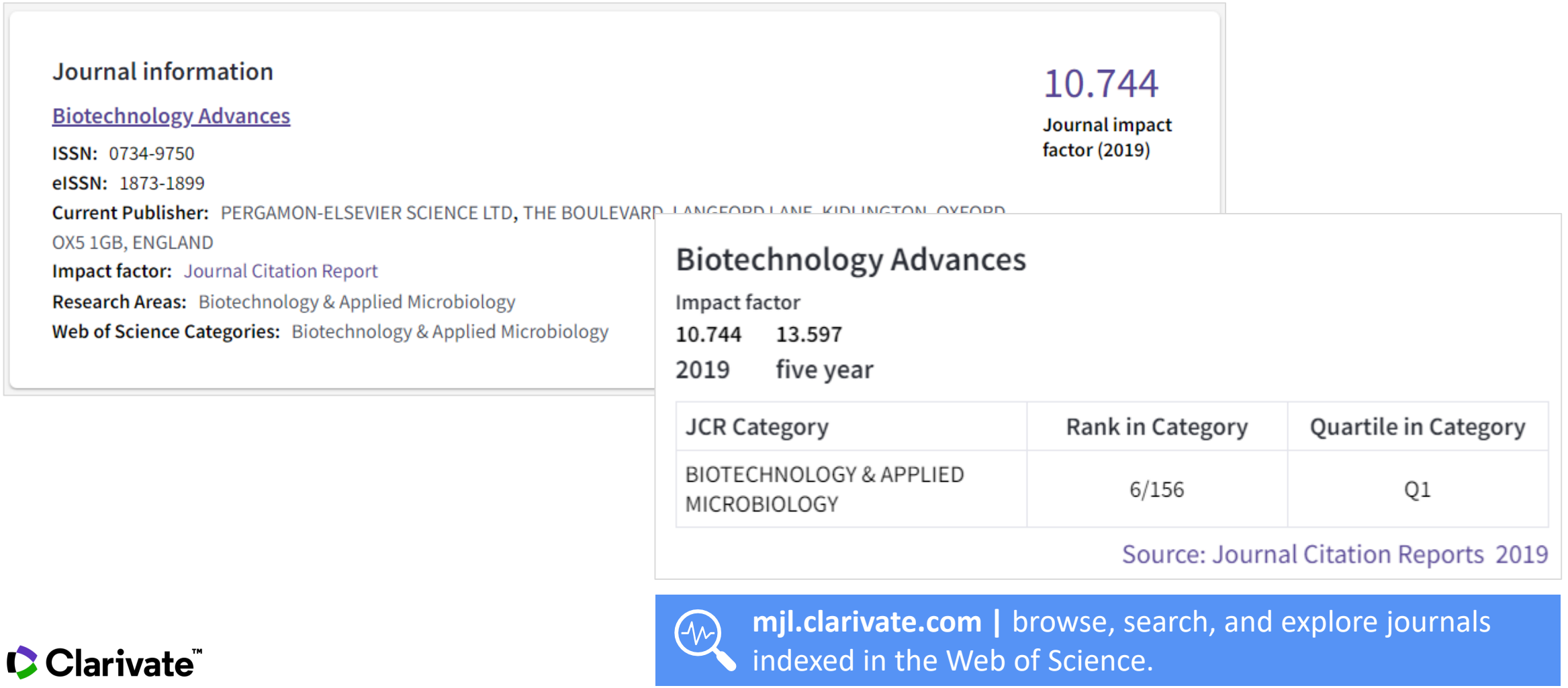
Discover Related Records that have a topical association to CRISPR research papers

View a **list of records that cite at least one document cited by the parent record** identified. Related Records are ranked according to the number of references they share with the parent record. The assumption behind Related Records searching is that articles that cite the same works have a subject relationship, regardless of whether their titles, abstracts, or keywords contain the same terms. The more cited references two articles share, the closer the subject relationship.

Out of the 15,344 Related Records: 7,307 contain the keywords "Clustered Regularly Interspaced Short Palindromic Repeat" or CRISPR while 8,307 records do not!



Discover the importance and visibility of the journals you search by contextualising the Journal Impact Factor



Journal information

Biotechnology Advances

ISSN: 0734-9750

eISSN: 1873-1899

Current Publisher: PERGAMON-ELSEVIER SCIENCE LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, ENGLAND

Impact factor: Journal Citation Report

Research Areas: Biotechnology & Applied Microbiology

Web of Science Categories: Biotechnology & Applied Microbiology

10.744

Journal impact factor (2019)

Biotechnology Advances

Impact factor

10.744 13.597

2019 five year

JCR Category	Rank in Category	Quartile in Category
BIOTECHNOLOGY & APPLIED MICROBIOLOGY	6/156	Q1

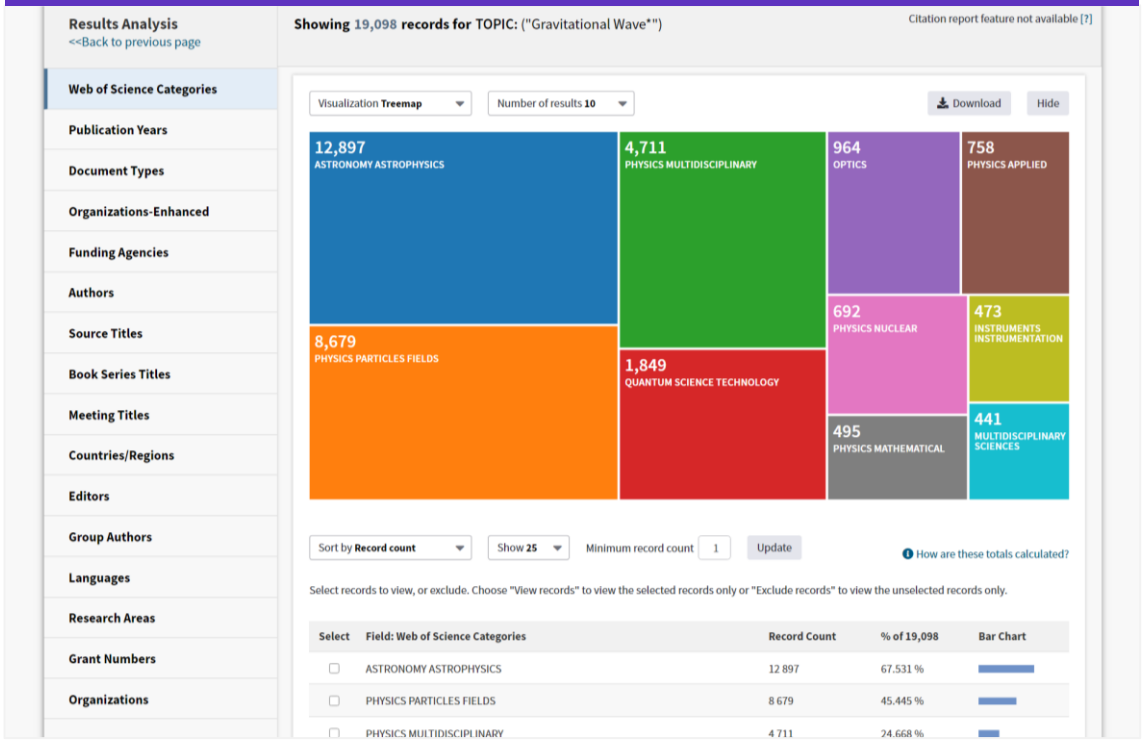
Source: Journal Citation Reports 2019

Clarivate™

mjl.clarivate.com | browse, search, and explore journals indexed in the Web of Science.

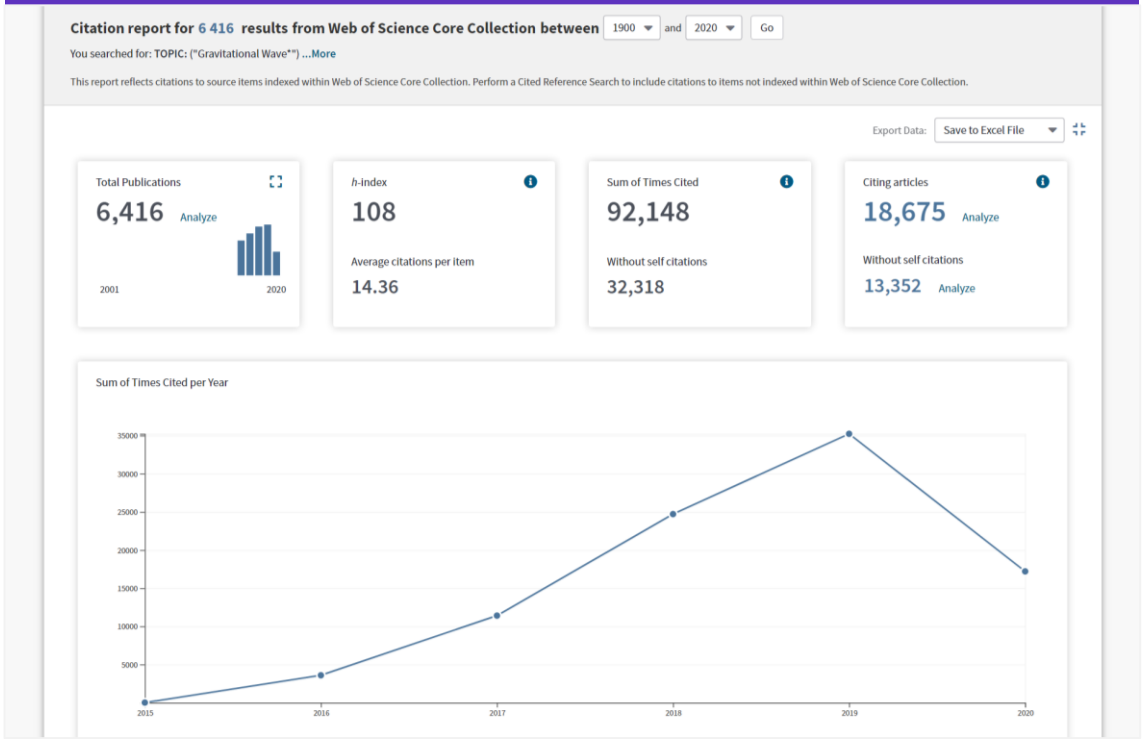
Research Tools

Results Analysis



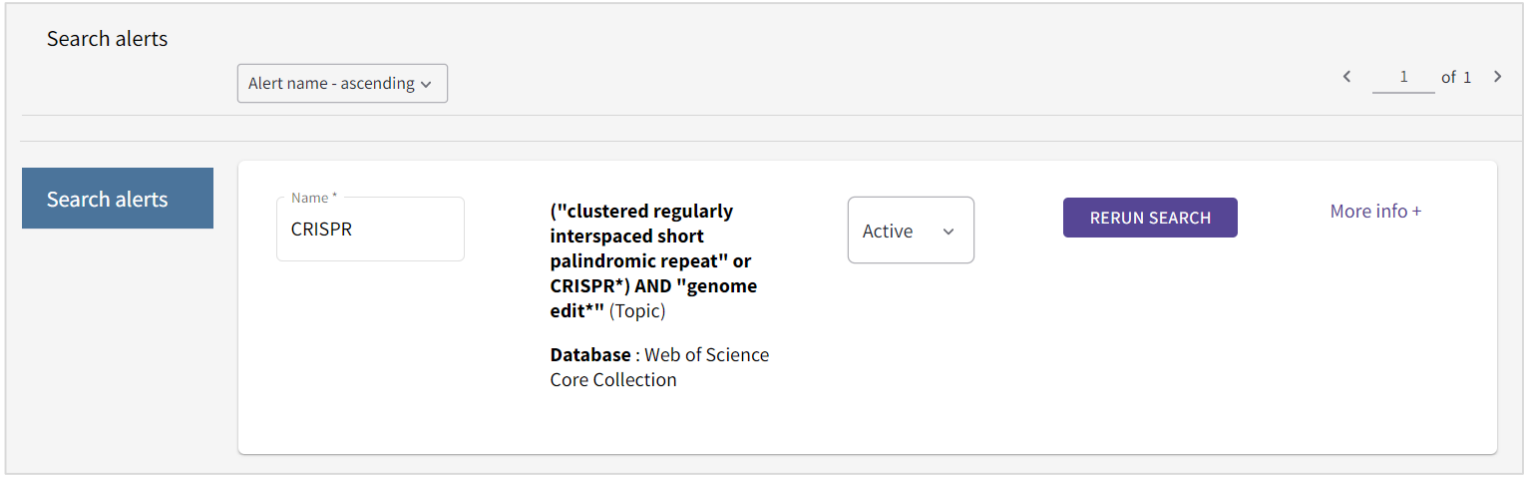
Group and rank records in a results set by extracting data values from a variety of fields. Find the most prevalent authors in a particular field of study or generate a list of institutions ranked by record count based on your search query.

Citation Report



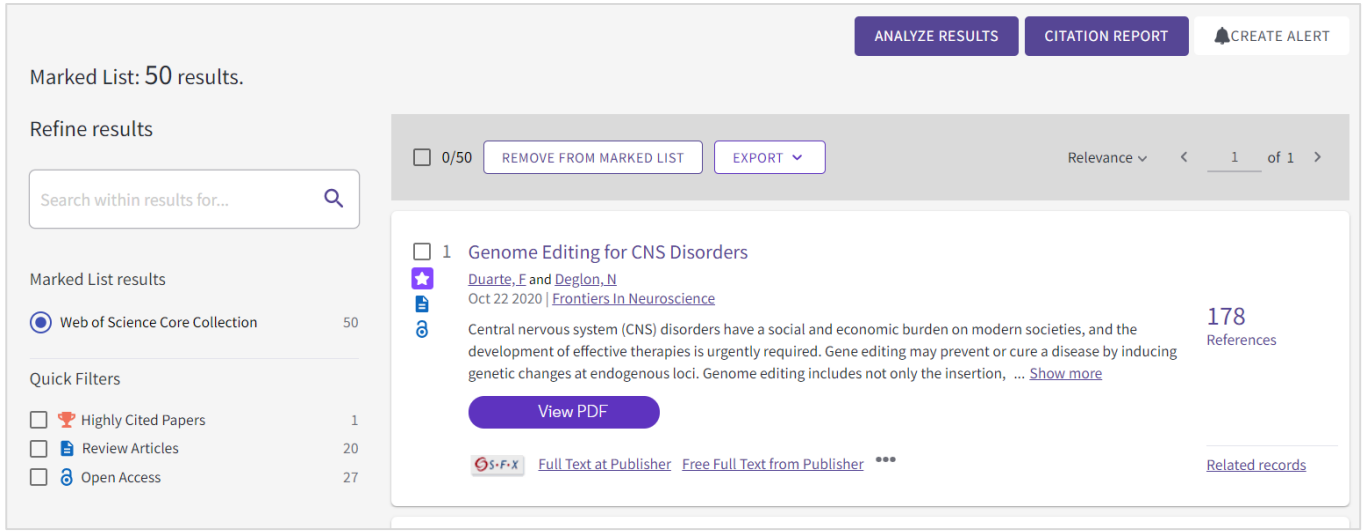
The **Citation Report** provides aggregate citation statistics for a set of search results.

Manage your Results



Saving (and revisiting) your Searches
You can create complex queries by combining many searches together in your Search History, then save the combinations so they don't have to be recreated each time you come into Web of Science.

The **Marked List** page stores records selected from your search results. After marking records, you can save your Marked List and return to it later.
Save up to 50 Marked Lists with up to 50,000 records per list. In order to save, you must be logged into your Web of Science personal profile.



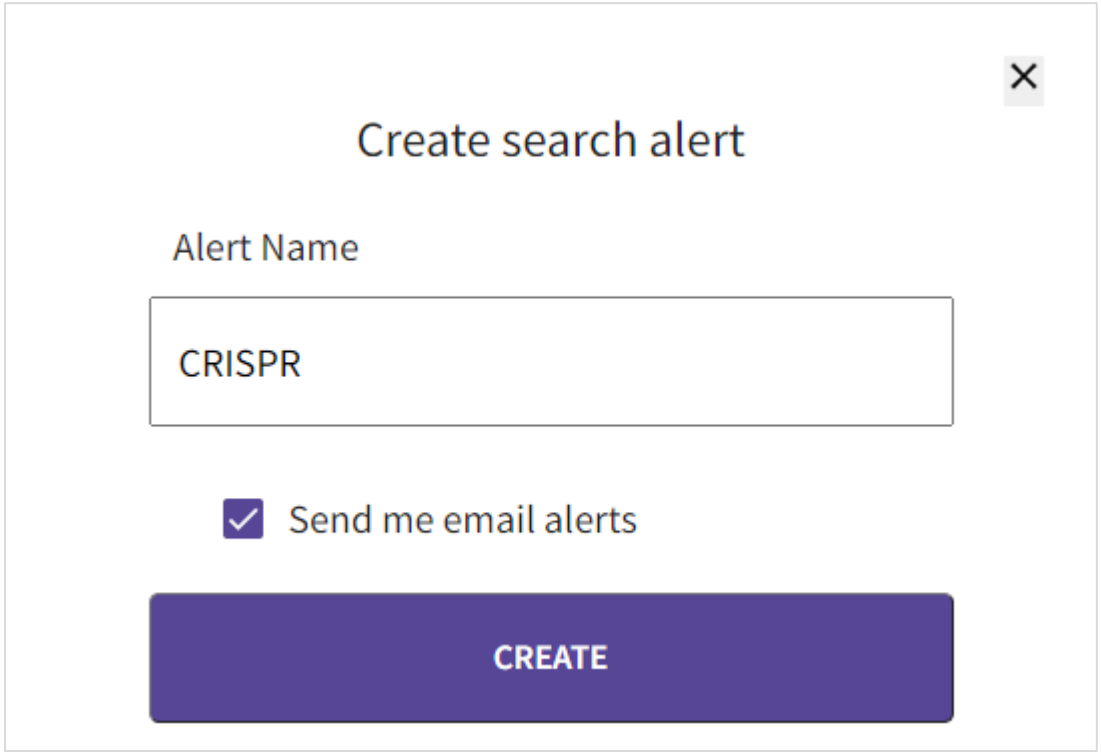
Create an Alert

Your Web of Science account also allows you to **save alerts** that notify you of updates in the data.

Search Alerts - save a search and establish a daily, weekly or monthly email notification when new publications are added that match.

Citation Alerts - have a favorite or important article you want to track? We'll notify you when it receives new citations.

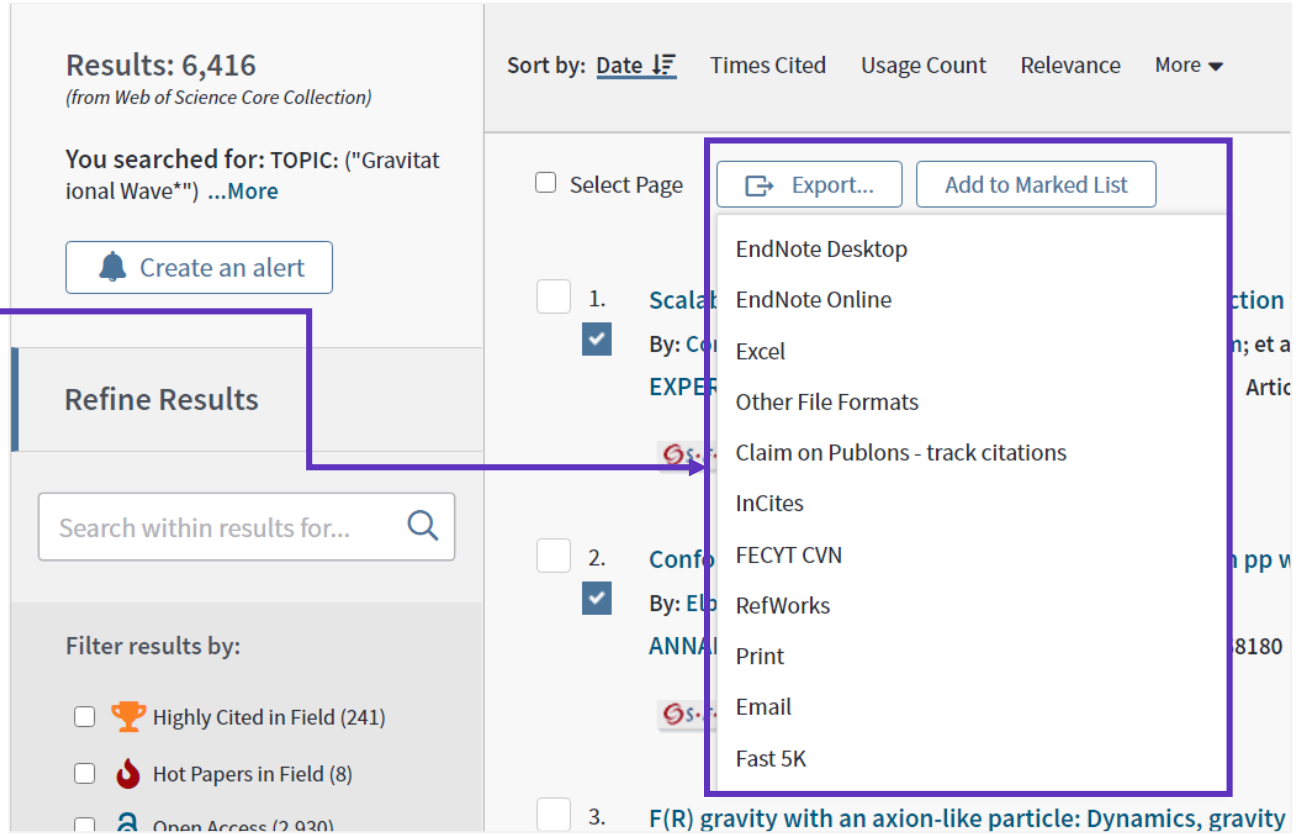
Table of Contents Alerts (Journal Alerts) - subscribers to our Current Contents Connect database can set up TOC alerts for their favorite journals all in one place.



Output Records

1. Select records
2. Select content
3. Select destination

Output options are available from the *Results* and *Full Record* pages in all Web of Science databases.



For the most comprehensive results, search across all subscribed resources

Value of accessing more databases through Web of Science

1. Each publication/record is fully integrated in the Web of Science Citation universe. All records get a *Times cited* count and a *Usage Count*, unique to the Web of Science. **Citation analysis** can be run on the each database content.

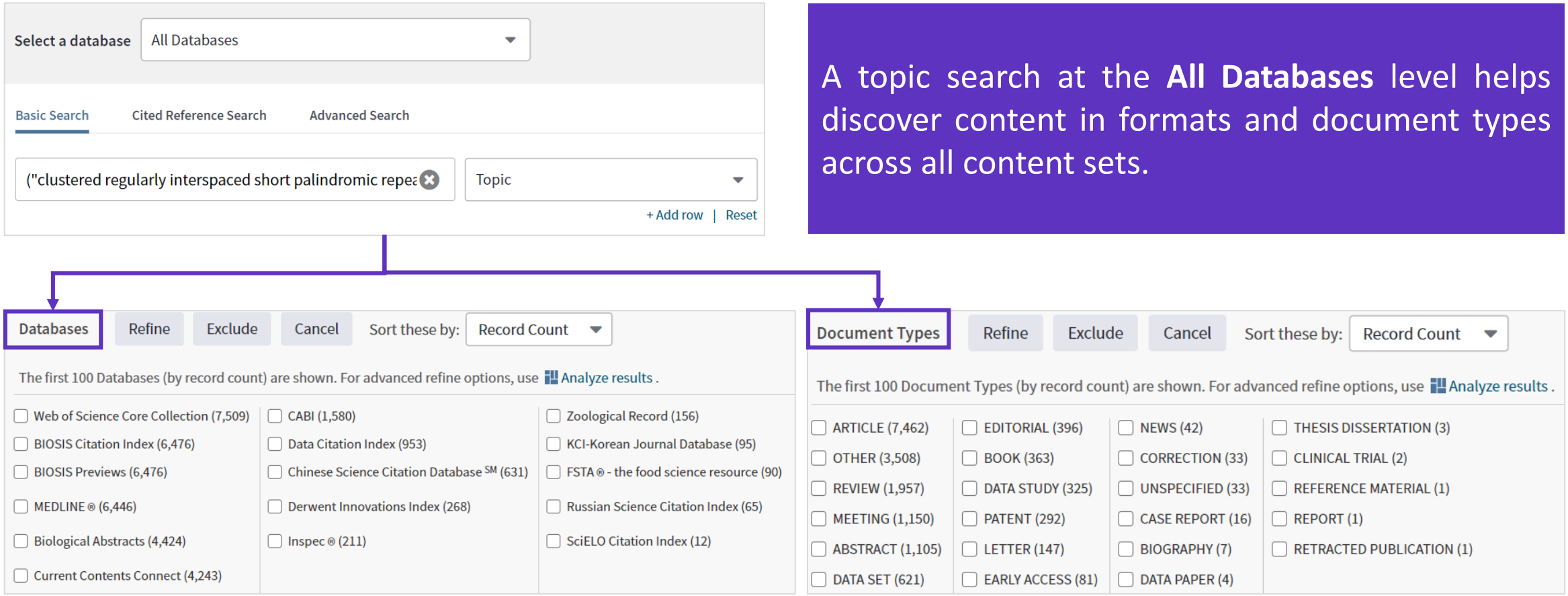
2. **Highly Cited Papers** (top 1%) and **Hot Papers** can be identified within other databases, when they are also indexed in the Web of Science Core Collection.

3. **Open Access** content in Web of Science is identified by making use of the ImpactStory Unpaywall algorithm, running across the whole platform content, using DOI data, and providing free full text linking.

4. Our tools - **Publons, Endnote** and **Kopernio** - are always integrated in each database.

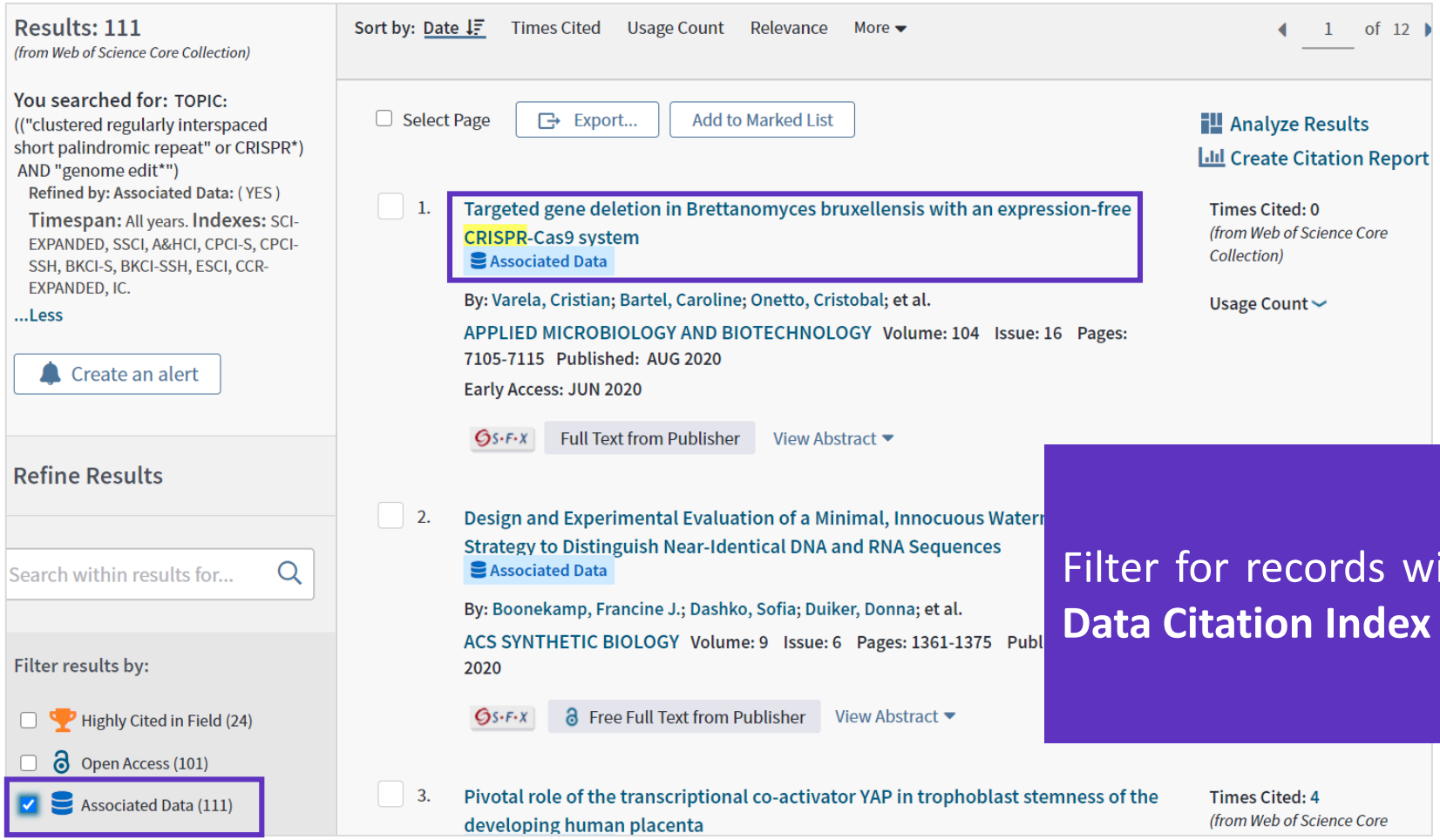
5. Each database metadata is merged and combined. This provides a very **powerful and unique multi-Databases search**, allowing for the retrieval of more publications. A common category scheme has also been created for better filtering/refining.

All Databases Search



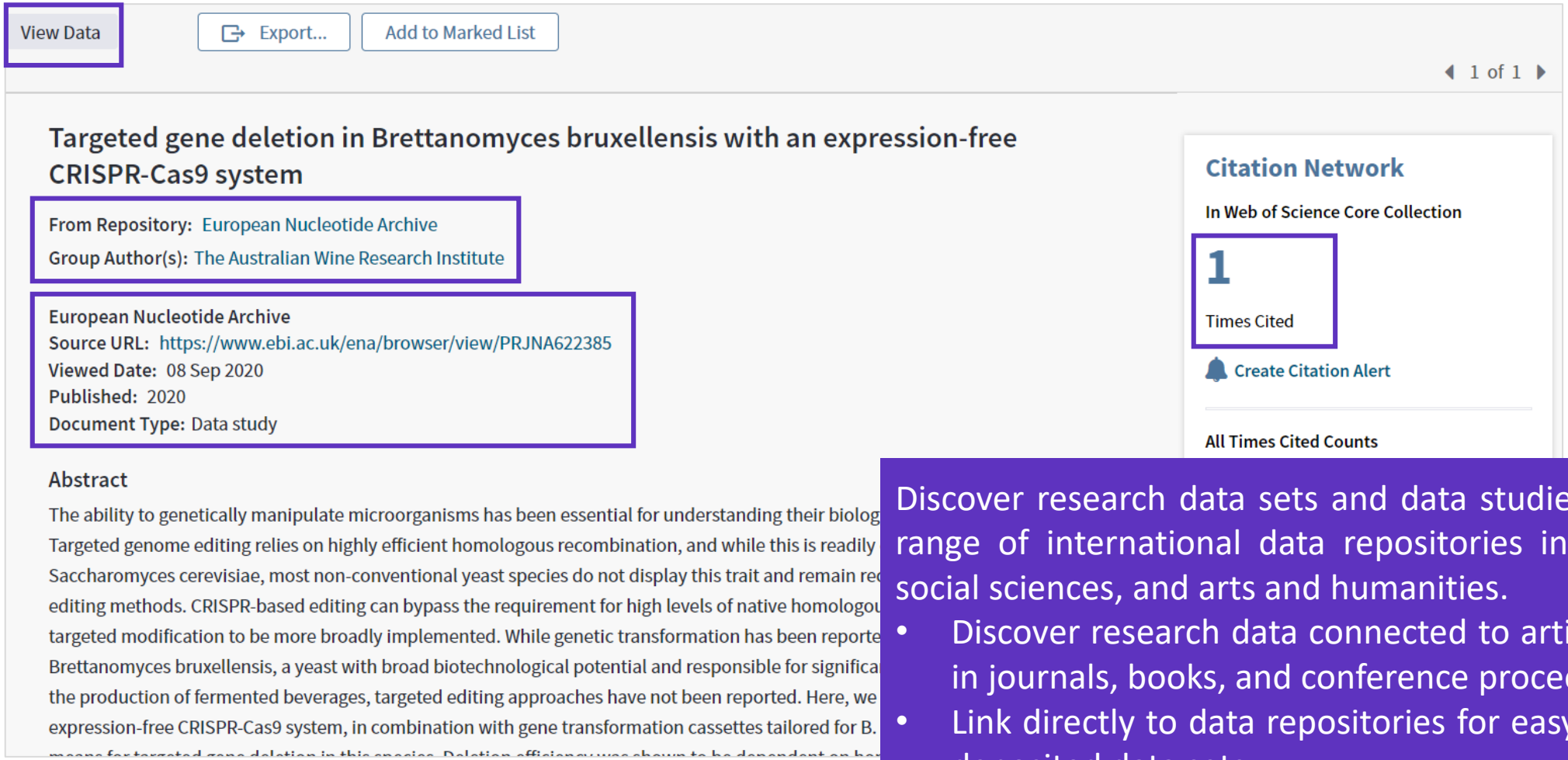
A topic search at the **All Databases** level helps discover content in formats and document types across all content sets.

Data Citation Index



Filter for records with linked data indexed in the **Data Citation Index** (DCI).

Data Citation Index

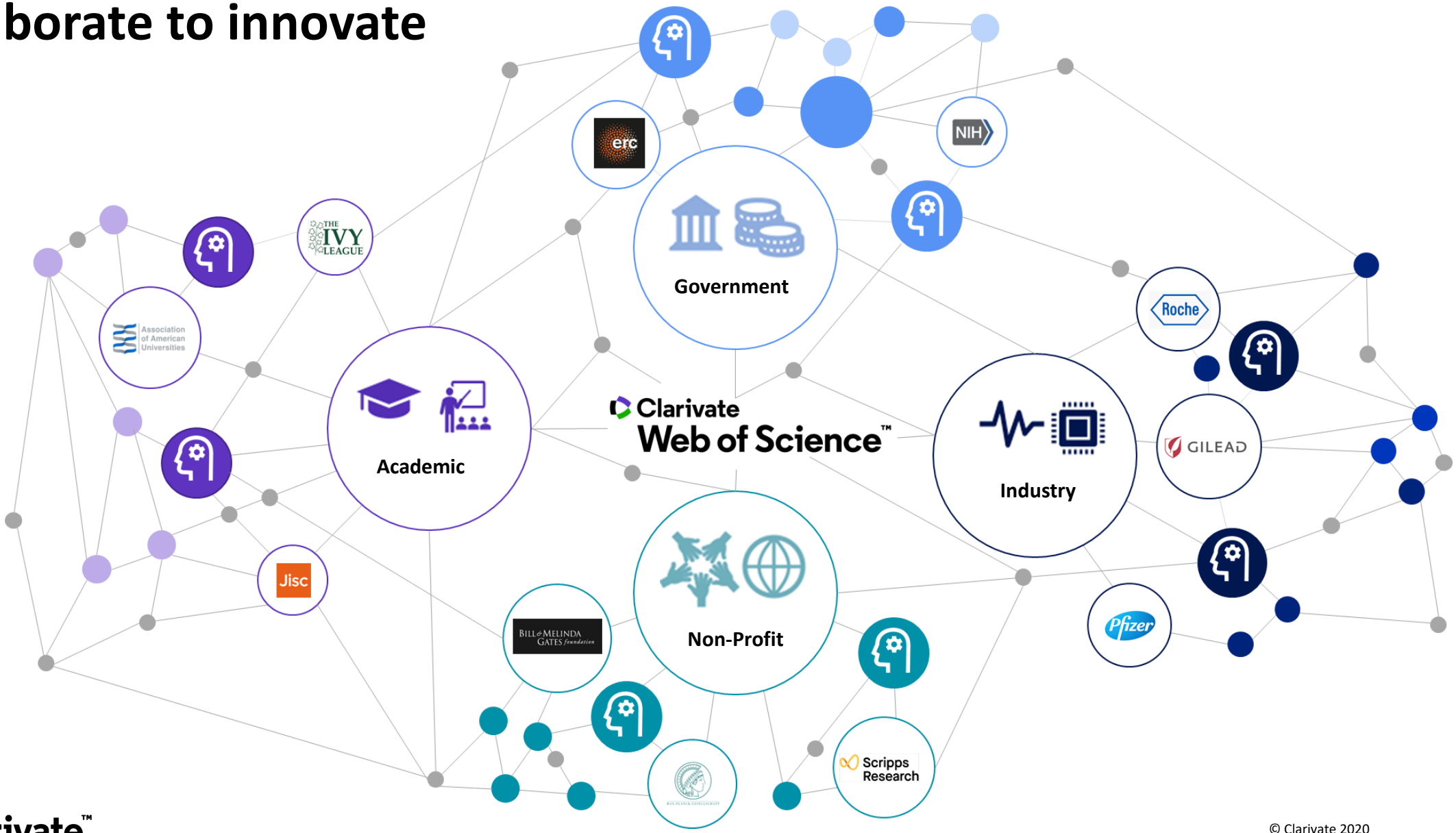


Discover research data sets and data studies from a wide range of international data repositories in the sciences, social sciences, and arts and humanities.

- Discover research data connected to articles published in journals, books, and conference proceedings.
- Link directly to data repositories for easy access to the deposited data sets.

Cortellis solutions dedicated to drug discovery and development

Collaborate to innovate



Clarivate™

Unlock hidden insights and bring life to science

Make data-driven decisions with speed and certainty

Supporting your needs across the drug/device development lifecycle

Discovery & Preclinical Development

Clinical Development & Regulatory

Portfolio Strategy & Business Development

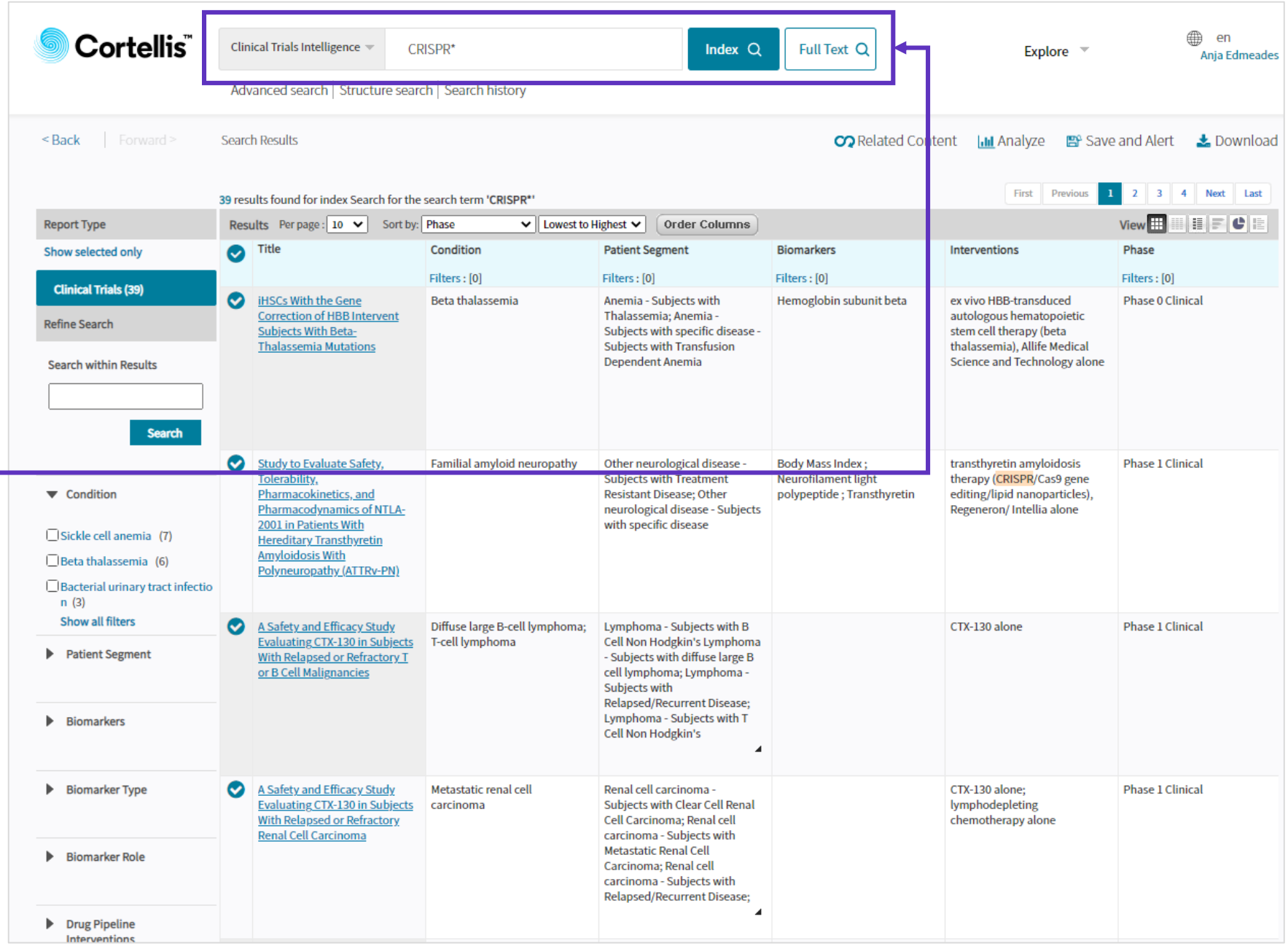
Generics Strategy & Development

<<<<< Data | Insights | Consulting | Benchmarking >>>>>

Cortellis™

Cortellis Clinical Trials Intelligence

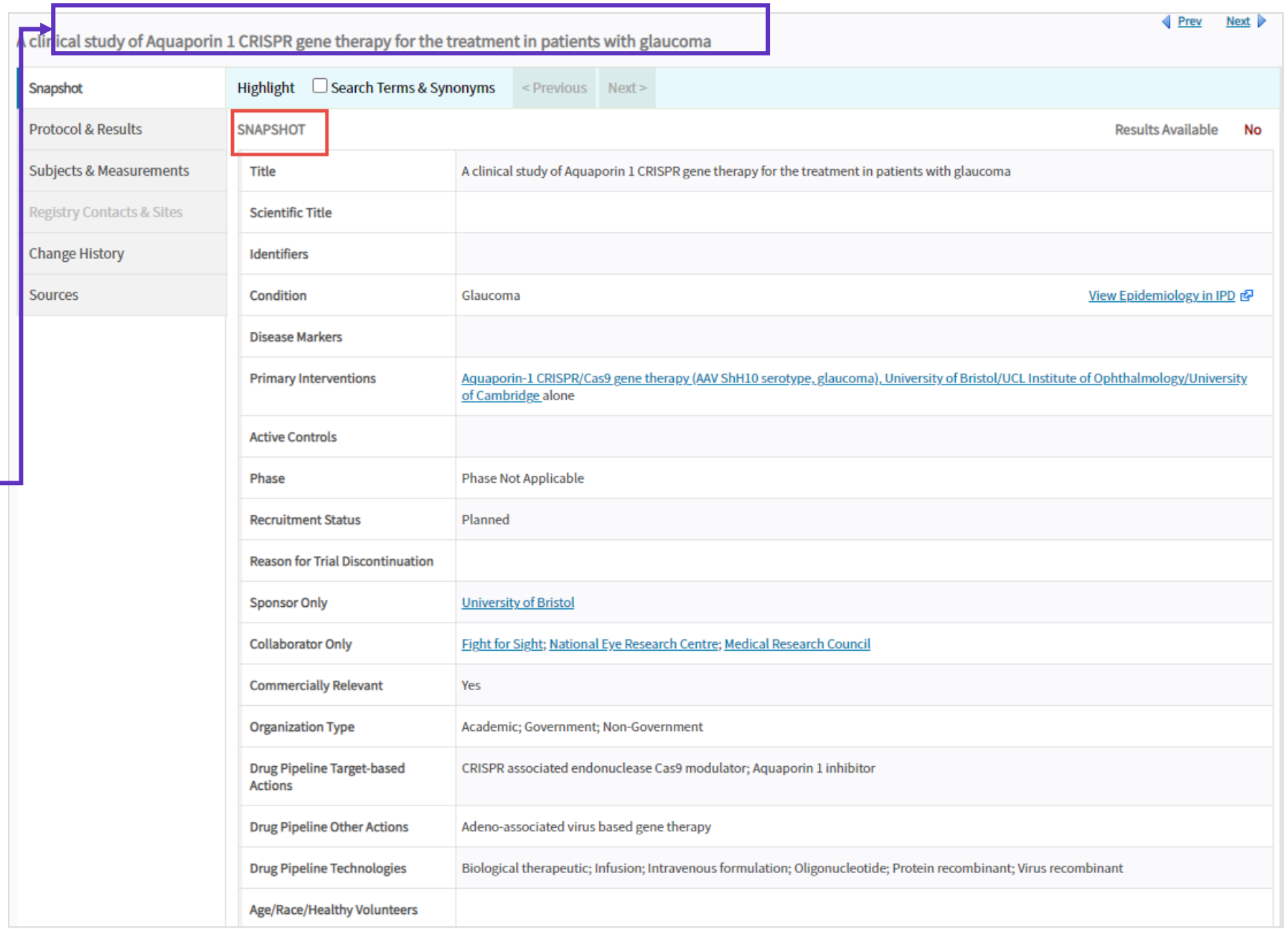
Accelerating innovation in the life sciences



Clarivate™

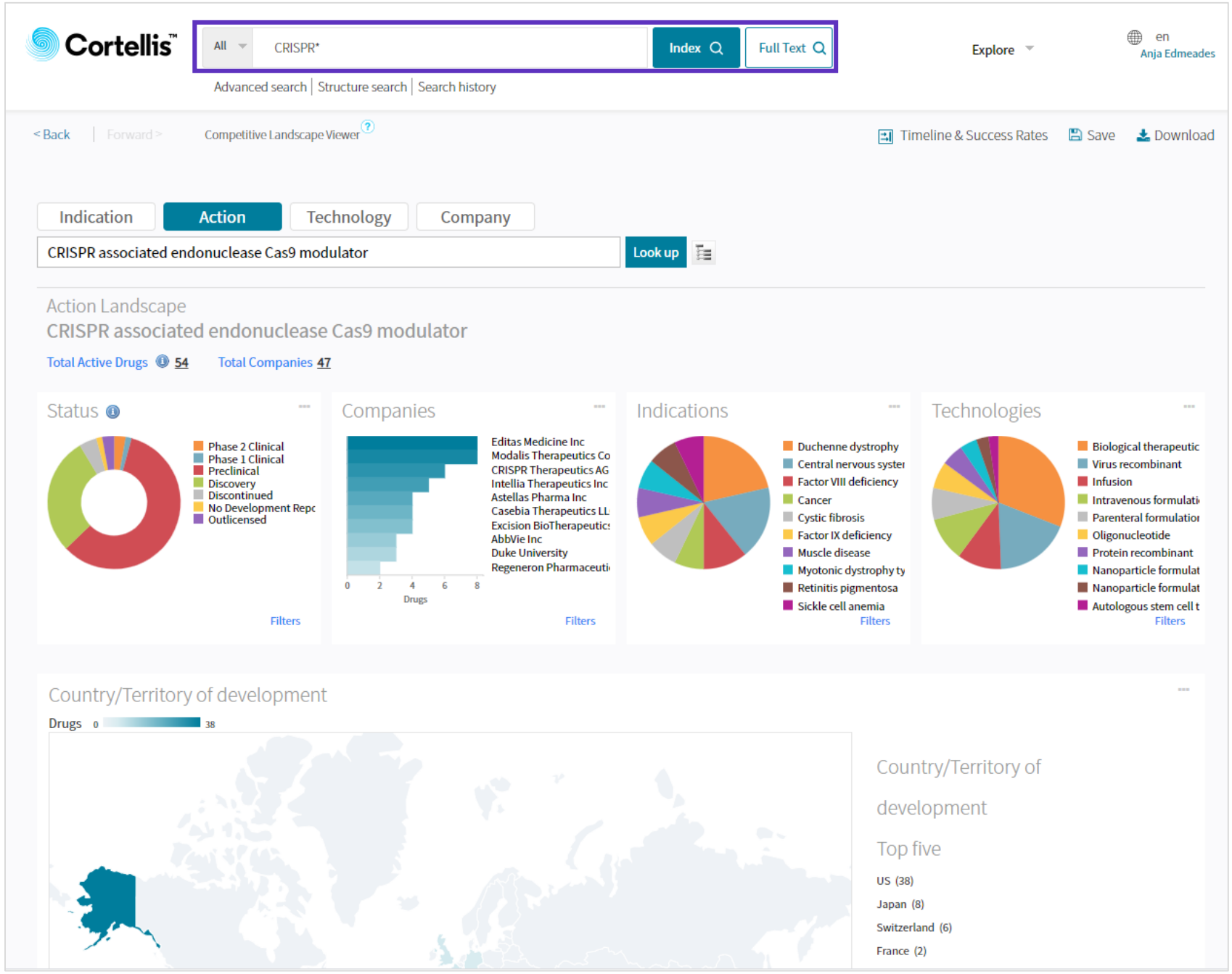
Cortellis Clinical Trials Intelligence

Accelerating innovation in the life sciences



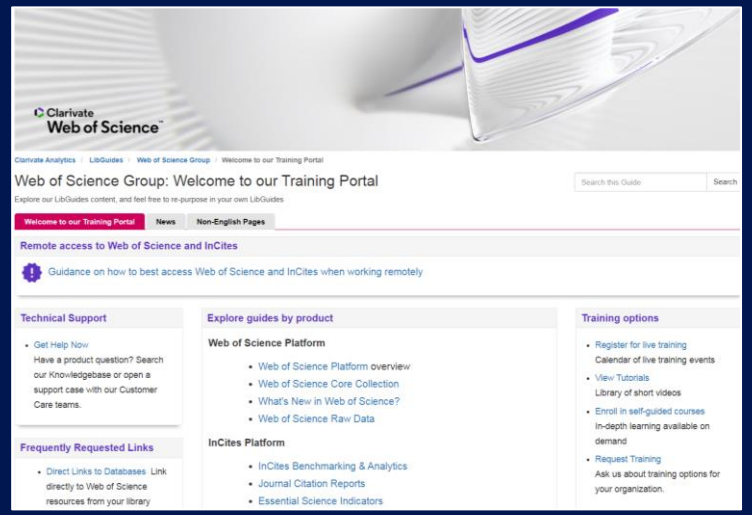
Clarivate™

Cortellis Competitive Intelligence



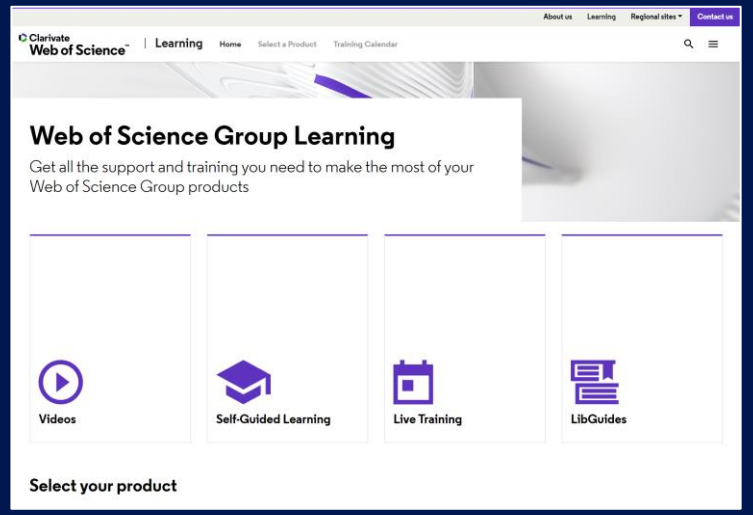
Clarivate™

Training resources



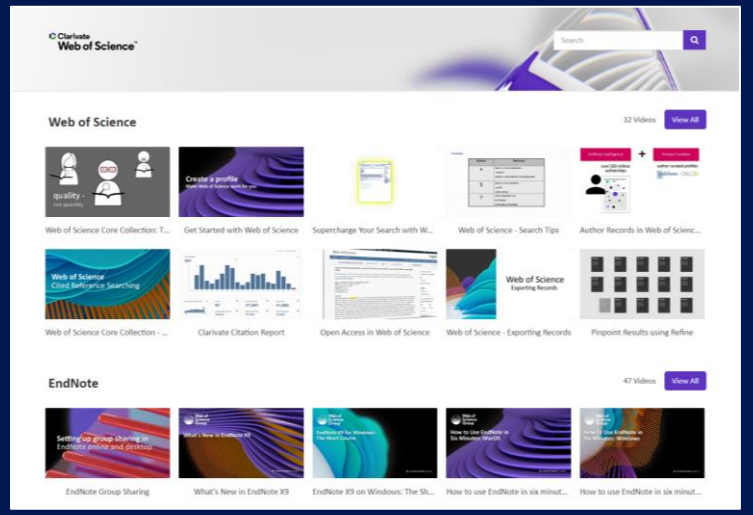
LibGuides

clarivate.libguides.com/home



Web of Science Learning

https://clarivate.com/webofsciencegroup/support/



Videos

https://videos.webofsciencegroup.com/

Vă mulțumesc!

Adriana FILIP
Solutions Consultant
adriana.filip@clarivate.com
www.clarivate.com