Life Science Research Center (LSRC)

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Infotrieve

- ▶ The leading integrated solution provider of information management and services
 - → Over 3,000 organizations and over 50,000 end users worldwide
 - → More than 1m articles delivered annually
- ▶ 18 years of experience
 - Operations worldwide
- ▶ Named one of the top-100 most important e-content companies by eContent Magazine





Life Science Research Center

Infotrieve's Life Science Research Center (LSRC) is an innovative discovery tool that combines articles, patents, and other STM documents with scientific data such as genes

... All with a life science focus.





What is LSRC?

LSRC is a tool that:

- Significantly increases scientists' ability to conduct deep content searches and obtain more meaningful research results
- Makes content more valuable by centralizing access to different content types, revealing hierarchical relationships between search subjects and other entities
- Provides multiple methods for evaluating the usefulness of results



LSRC – Search AND Discover

- Single interface to cross-content search
 - → Narrow by categories/content type(s)
- Basic and Advanced Searching
- Discovery tools
 - Entities and Clusters
- Synonyms
 - → Smart searching with UMLS, NLM's meta thesaurus
 - → Automatically finds synonyms
- Full Text Indexing
 - Windows into the Full Text



LSRC - Search AND Discover

- 'More like this'
- Cited References
- Awareness
 - → Alerts
 - → Recent/Saved Searches
- Laboratory Toolbox
 - → Calculators
 - → Reference Tools
- Multiple Sorting Options



Windows into the Full Text

- Going well beyond services that only use titles and abstracts, LSRC has indexed the full text of millions of:
 - → Scientific journal articles
 - Book Chapters
 - → Gene records
 - News articles
 - ...and more
- Delivering a window into the full text:
 - Search keywords within the full text
 - Scientific terms (entities) are extracted from within the full text and displayed along with the search results
 - → View keywords in context within the full text
- With a view into the full text, users can make smart decisions about reading or purchasing an article



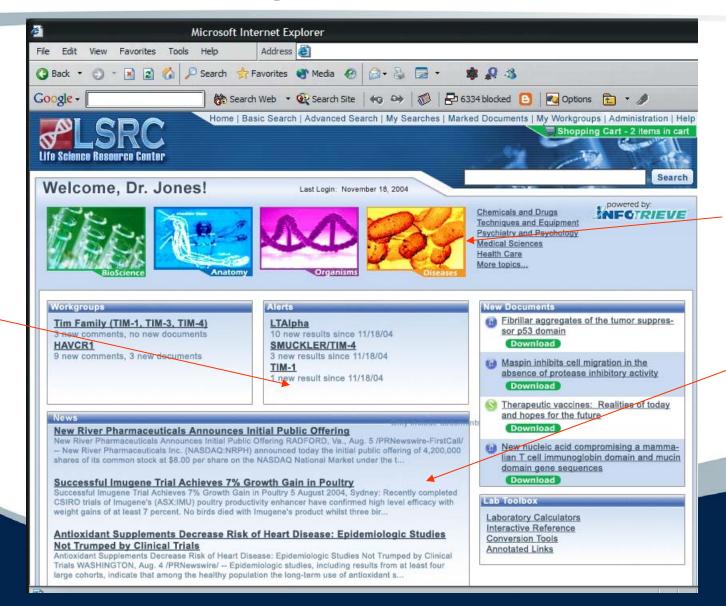
Additional Content Types

- Worldwide Patents
- Business Information
 - → E.g. Drug Pipelines, R&D Profiles
- ▶ Life Science News
- Organisations
- Protocols
 - → LabVelocity, Suppliers, Publishers



LSRC Home Page

Alerts

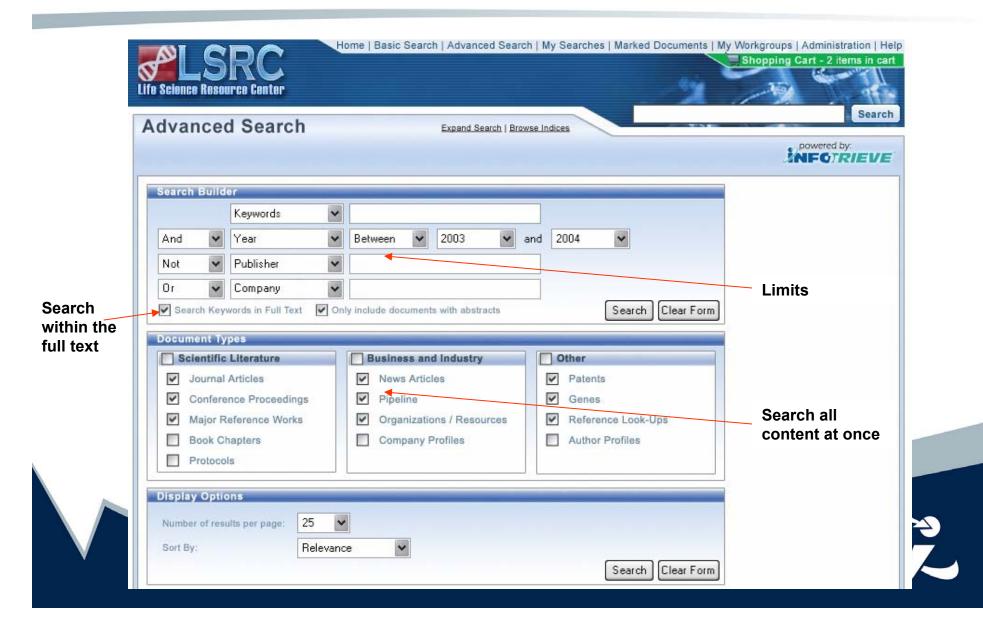


Browse by scientific categories

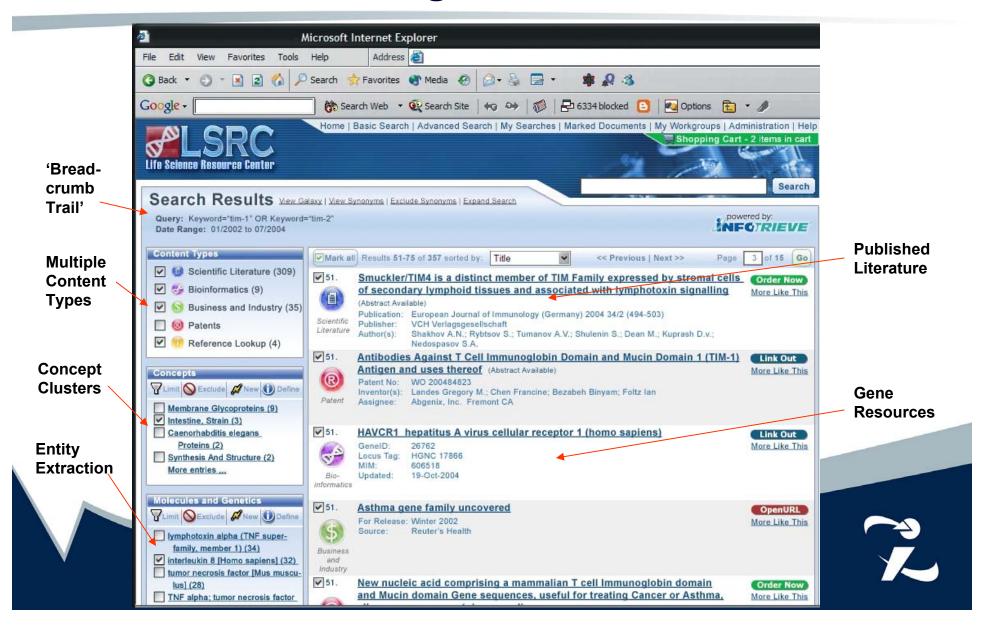
Customize news based on area of research

7

Advanced Search Screen



Search Results Page



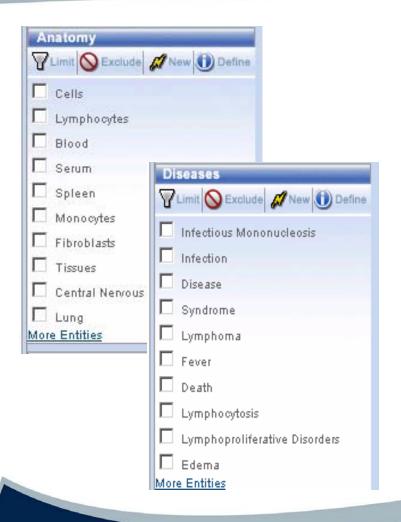
LSRC -Discovery Tools

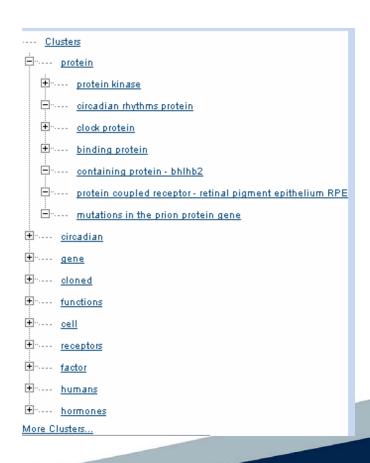
- Entity extraction
 - Terms from Authority Files extracted from the Full Text
 - ▶ Anatomy
 - ▶ Chemicals
 - Diseases
 - ▶ Drugs
 - ▶ Genes
 - ▶ Organisms
- Clustering
 - → Extracts common terms/phrases/concepts
 - → On the Fly





Entities & Concept Clusters







Entity Extraction – An Example

Search using a Protein Name

- Entities Reveal:
 - Organisms this protein is known in
 - Diseases this protein is involved in
 - Drugs that act on this protein

Search using a Disease Name

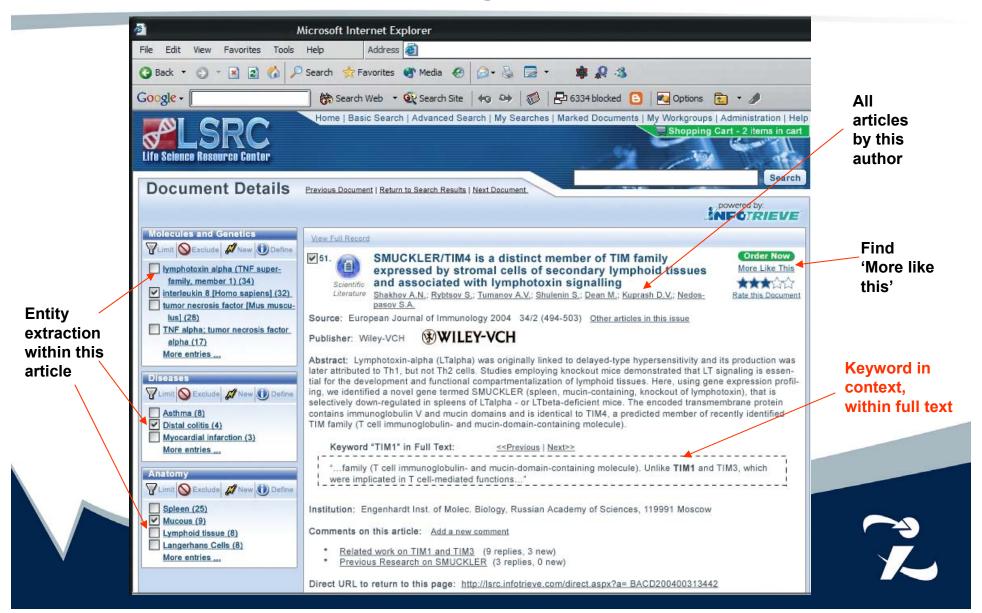
- ▶ Entities Reveal:
 - Parts of the body affected
 - → Related drugs/chemicals
 - Genes associated with the disease



Simplifies the Process of Getting to the Critical Information



Document Details Page



Collaboration

Personal and Group Projects

- Organize your work in project folders
 - Personal and workgroup access
- Rate documents, share comments



9 new comments, 3 new documents

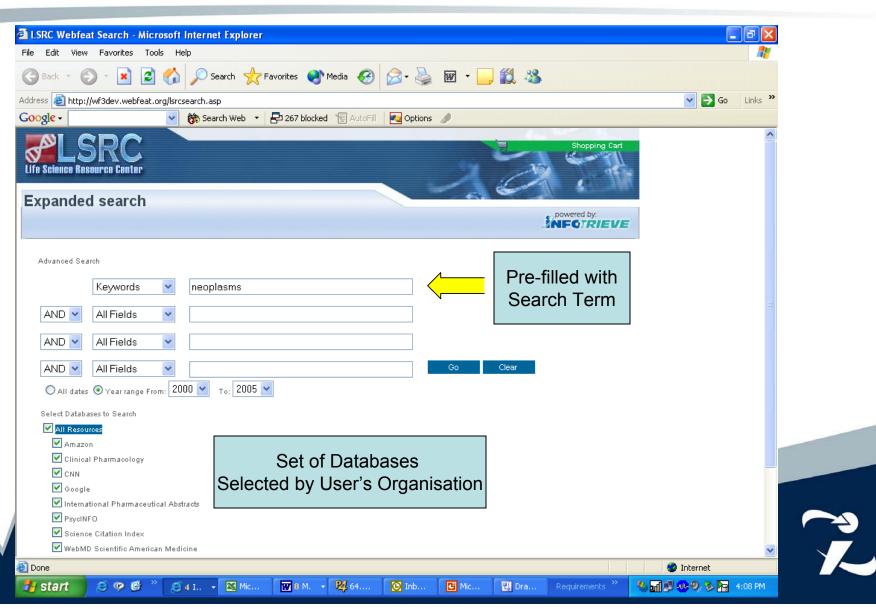
Discussion boards for your work group

Comments on this article: Add a new comment

- Related work on TIM1 and TIM3 (9 replies, 3 new)
- * Previous Research on SMUCKLER (3 replies, 0 new)



Expanded Search



Expanded Search

- Federated Search/Meta Search
 - Allows you to search all of your databases at the same time from a single interface
- ▶ 1000s of connectors already built
 - → Access available free or subscription databases
- One search interface
 - One authentication manager
- ▶ Integrated with journal content management
- Clustering
- ▶ First returned, first displayed
- Access the native interface of any result



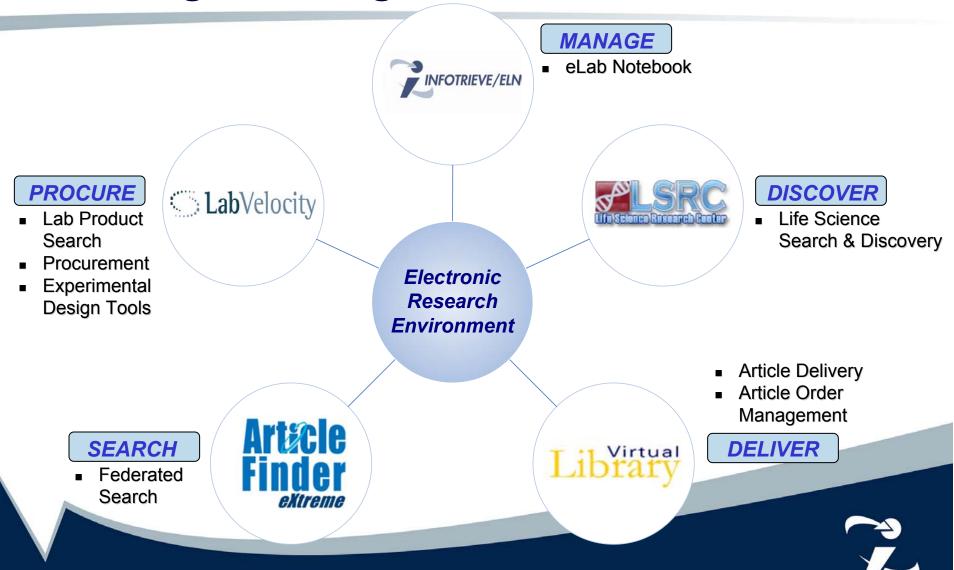
Customer Feedback

"LSRC simplifies the way researchers access and prioritize information, and it also *helps to identify important relationships* between data – for example between a journal article and a patent. No other tool allows you to see – *in one place using a single search* – patents, protocols, tools and papers related to any scientific subject."

Dr. Paul Rennert, Senior Scientist, Immunology, Biogen Idec.



Creating the Integrated Solution in eR&D



Benefits of LSRC

- Not Just 'Repackaging Content'
- Discovery, not just search
 - → Entity Extraction
 - delion

Reveal Relationships

- Clustering
- Multiple Content Types
 - Cross-referenced
 - → Not limited to one publisher
- Window into the Full Text through Full Text Indexing
 - → Enables deep searches
 - ▶ Broaden with Expanded Search
 - Display Keywords in Context
 - → Entity Extraction



Summary

LSRC is a tool that:

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