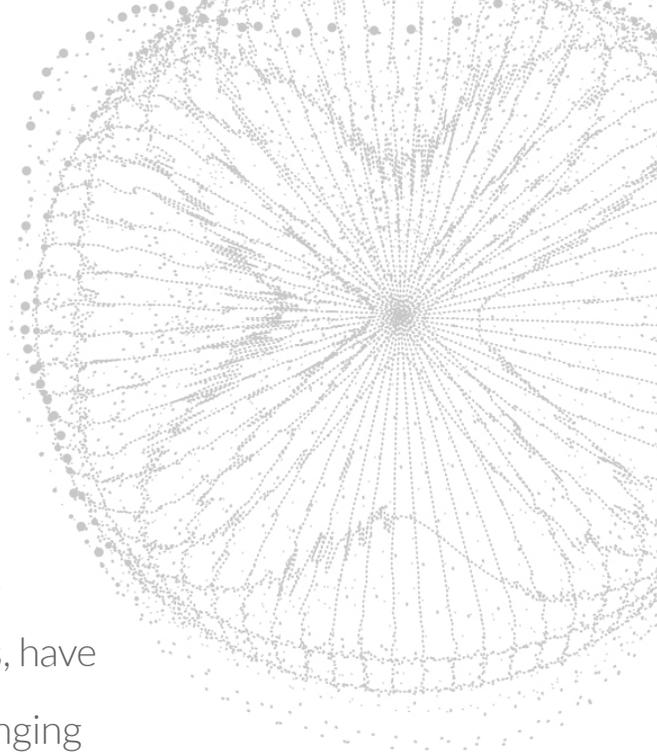




Life Sciences Data Solutions:

What You Should Know



Life sciences industries, including pharmaceutical, biotechnology, and medical device manufacturers, have complex and unique problems. On one hand, bringing new products to market requires sharing ever more resources and data across an organization. On the other hand, intellectual property and patient information must be protected and secured. This results in data sets that are spread across numerous sources and geographies. The users that access and analyze this information need customized views into the data in order to understand it for their purpose.

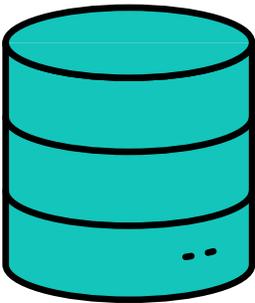
This guide will illustrate how the Lucidworks Fusion platform can enable you to create powerful search and data applications that solve the most common data challenges for life sciences.

Here are some of the common problems and their solutions:

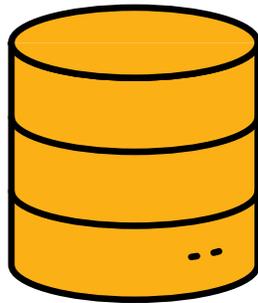
Problem:

Data is distributed among different organizations in different formats, and searching across each source separately wastes time and resources.

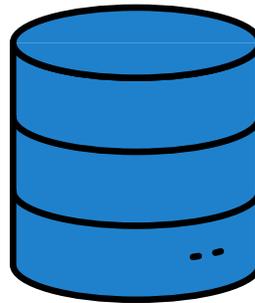
Research Data



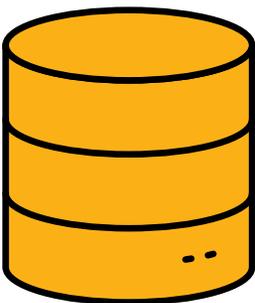
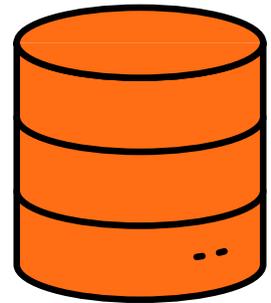
Phase 1 Data



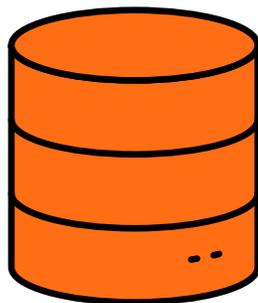
Clinical Trials Data



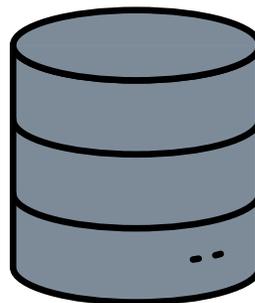
Biological Data



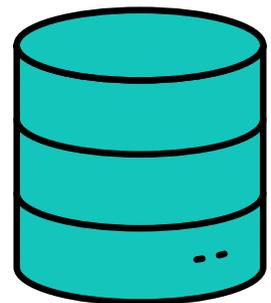
IP Data



Field Data



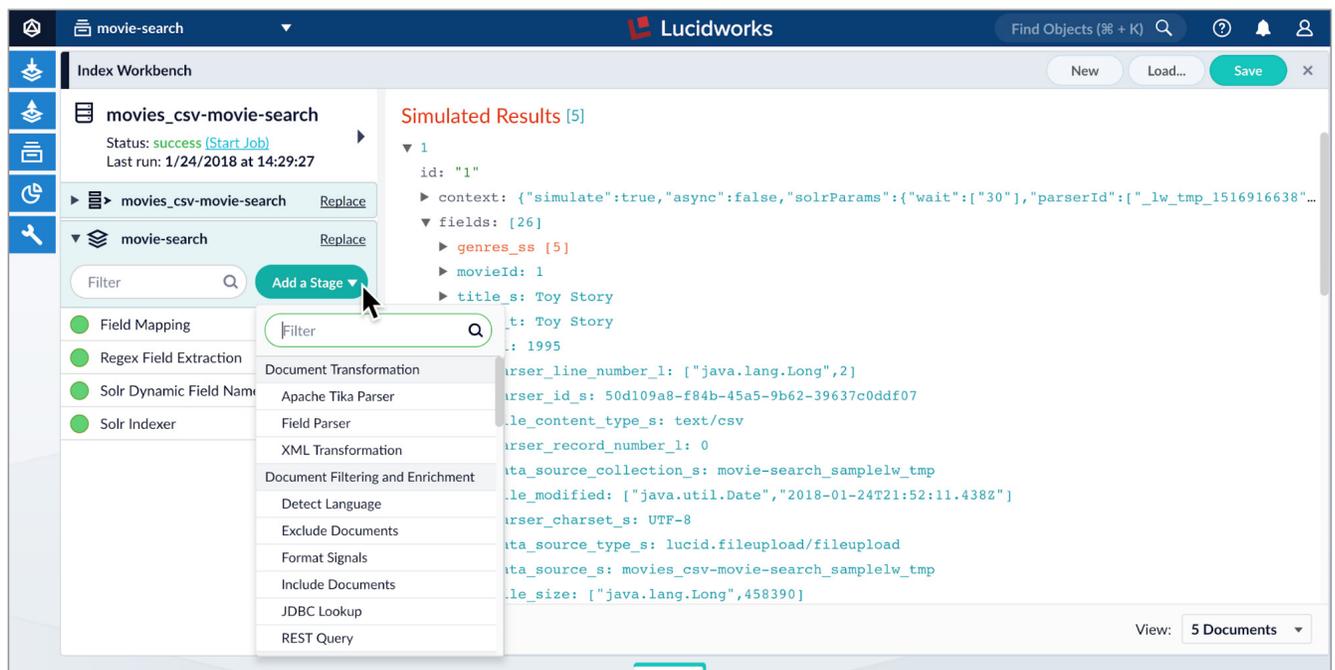
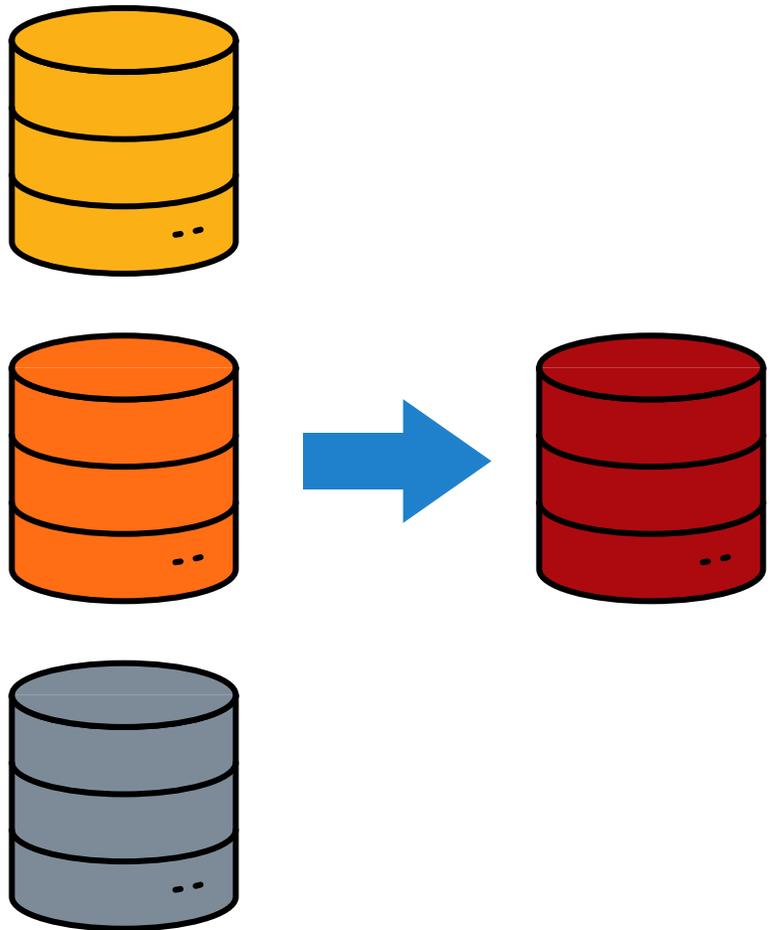
Treatment Data



Patient Data

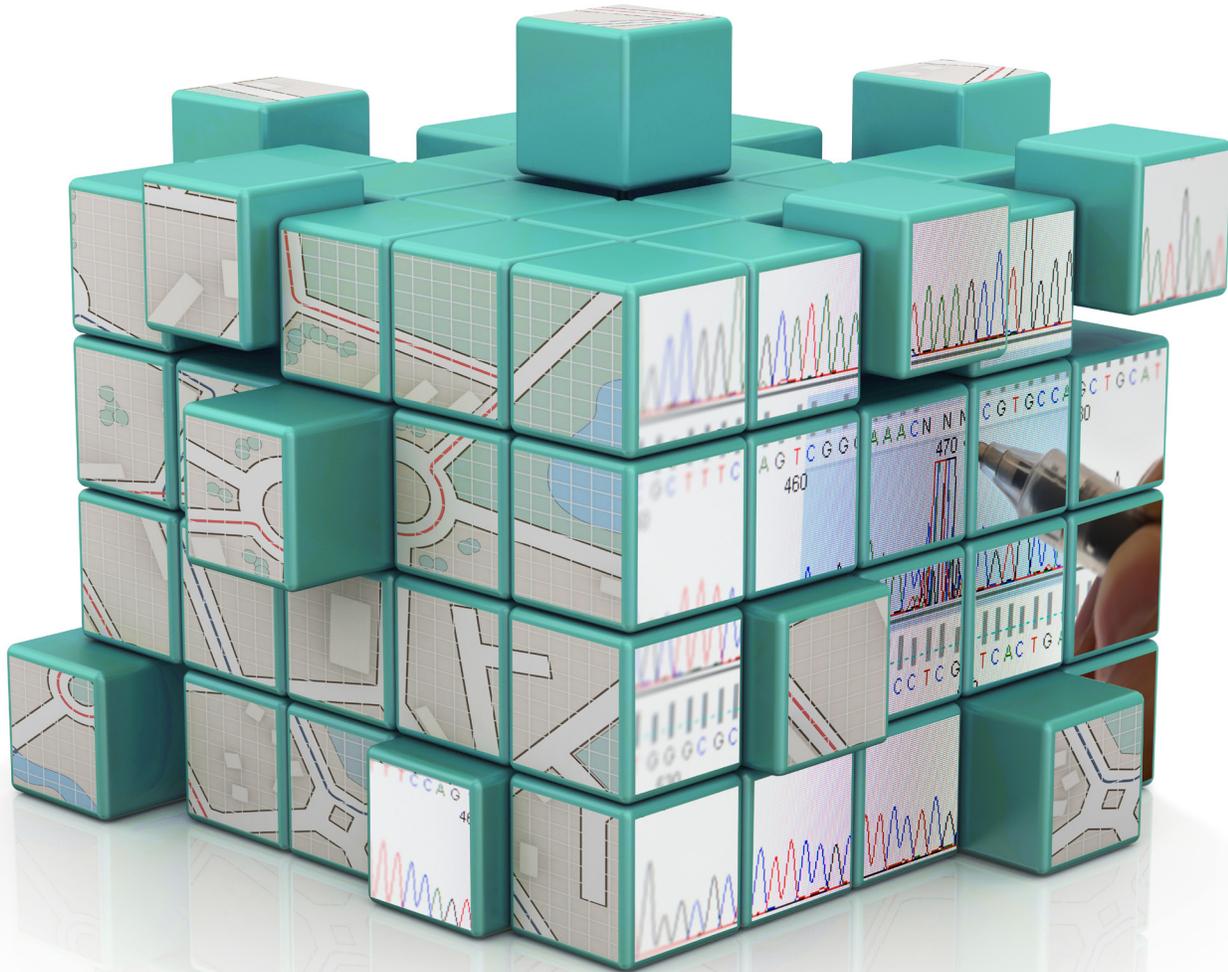
Solution:

Fusion pipelines allow importing, transforming, and augmenting data from hundreds of different data source types into the index so that data applications can provide higher quality search results and more context around each data point.



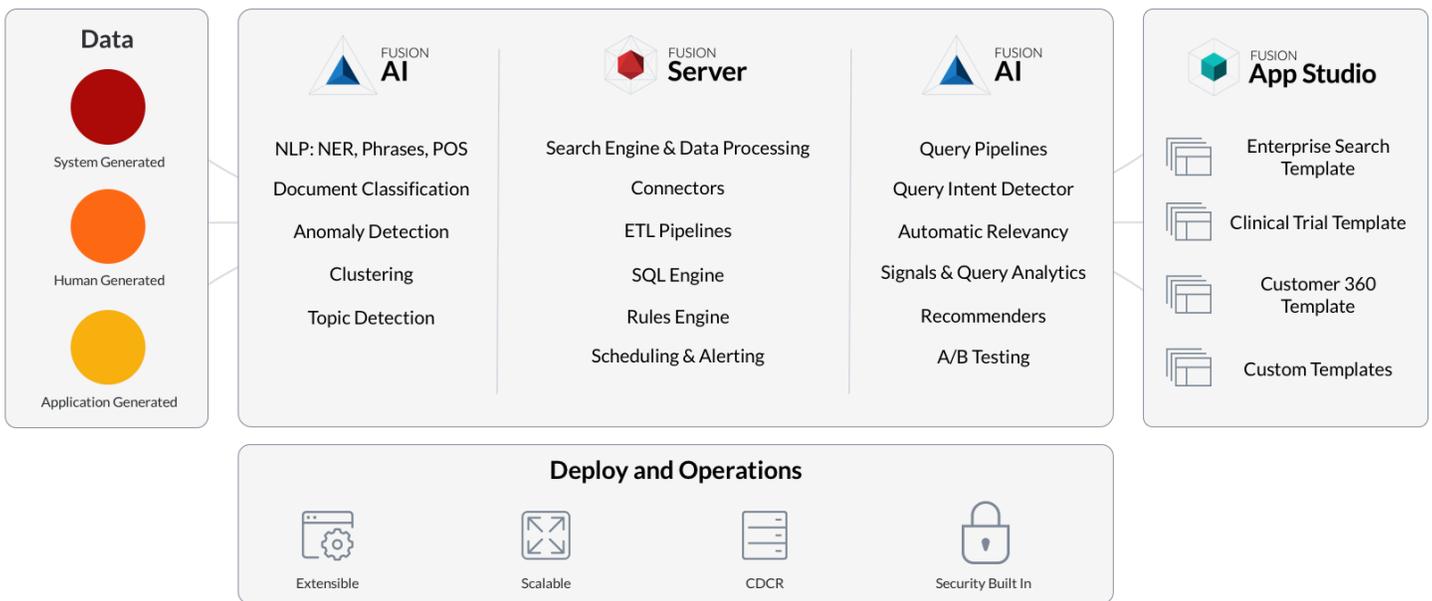
Problem:

Different types of data need to be analyzed in combination.
Data volumes are too large for traditional RDBMS joins and too complex for data warehouses or data lakes.



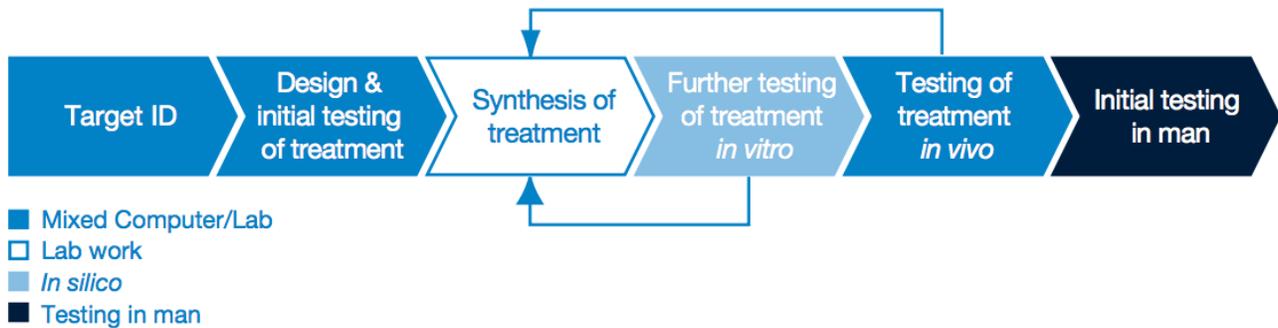
Solution:

Fusion's distributed document-based database powered by Apache Solr can join as many as 11 collections with as many as 2 billion documents (depending on the complexity) on inexpensive commodity hardware. This includes using complex joins and pivots.



Problem:

Multiple users across different disciplines (research, clinical trials, regulatory, marketing) need real-time access to data but with different visualizations and emphasis.



Source: PricewaterhouseCoopers

Solution:

Fusion App Studio enables teams to create various types of visualizations to simplify data analytics for particular views or roles.

Trial Central Search by condition type, drug name, or trial name... Search

DASHBOARD TRIALS DRUGS

Start Date: 2003 - 2018

Completion Date: 2003 - 2018

Drugs: Placebo (16,588), Cyclophosphamide (1,883), Cisplatin (3,509), Paclitaxel (3,374), Carboplatin (1,347), Dexamethasone (1,146), Docetaxel (1,076), Metformin (826) + Show more

All 244,482 | Interventional 195,704 | Observational 47,623 | Expanded Access 430 | Sort by relevance

Showing 1 - 12 of 244,482

Individually Tailored and Integrated Social Support Network for Tobacco Cessation
Trial dates: May 29, 2017 → Nov 29, 2018
Condition: Smoking Cessation
Sponsor: The Miriam Hospital, Live Inspired, LLC
Current Status: Recruiting

Coronary Anatomy Study and Times Since the Onset of Acute Myocardial Infarction Symptoms in Women Until the Opening of the Artery (TAPAC Study)
Trial dates: May 31, 2017 → Apr 30, 2020
Condition: Myocardial Infarction
Sponsor: Hospital Universitari Vall d'Hebron Research Institute
Current Status: Not yet recruiting

Nutrition-sensitive Agricultural Interventions for Ethiopia
Trial dates: Nov 20, 2016 → Oct 20, 2018
Condition: Dietary Modification, Health Behavior
Sponsor: Harvard School of Public Health, International Livestock Research Institute, Addis Continental Institute of Public Health

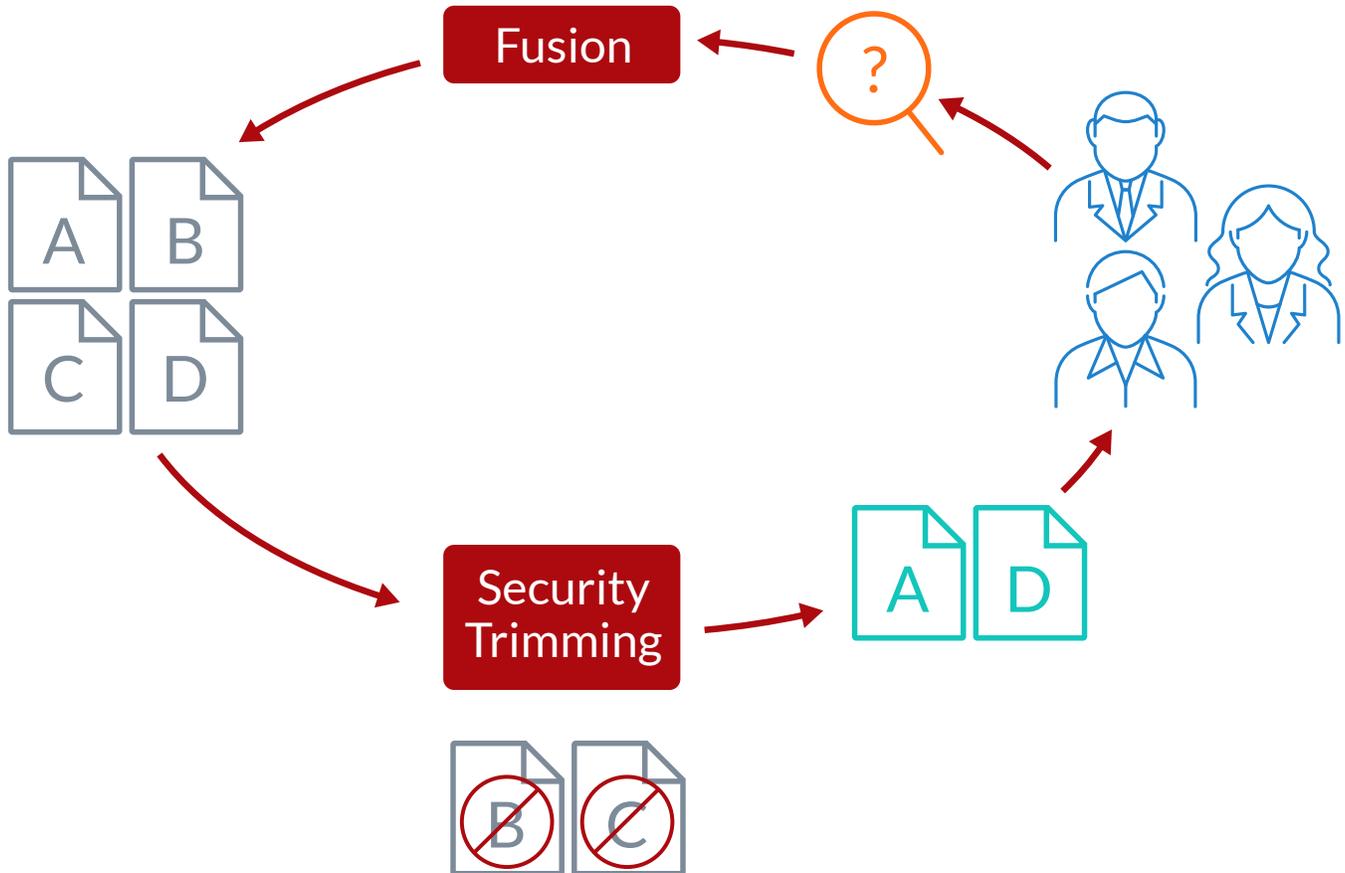
Problem:

Patient and other types of data such as intellectual property need to be kept highly secure and controlled by role, region, and in some cases owner.



Solution:

Fusion's security framework allows for both single sign-on and security trimming. This facilitates making sure data is only seen by those who have the authority to see it.



Problem:

It isn't possible to dump all data into a lake. There are too many sources distributed in too many places.



Solution:

Fusion App Studio's data brokers allow you to connect to data sources from around the globe without having to ingest them into a separate data lake. A hybrid approach allows you to utilize the search-driven analytics power of Fusion while using an "analyze in place" strategy for other distributed data sources.

Trial 233/4867/190422
Current status: Ongoing
LS-233/4867 • L002678 • Chlororin

SEARCH / COMPOUND DETAILS < BACK TO RESULTS

Synopsis

Further investigations into how LS-233/4867 fights the malarial parasite and show that it is appropriate in treating more resistant malaria strains.

LS-233/4867 Malaria Oral Tablet L002678
Chlororin Resistant Indication

Staff

The following people are all linked to this trial.

Name	Role	Contact
Rowena Chan	Associate Hematologist	rchan@tiscience.com
Stuart Witney	Hematologist	switney@abbvie.com
Wayne Khoe	Support	wkhoe@tiscience.com

Drug Supply

GEOGRAPHIC SCOPE: France

SITE ENROLLMENT : FRANCE

8	3	5
Target	Actual	Enrolled

SUBJECT ENROLLMENT : FRANCE

Location	Target	Actual
Paris	90	66
Lyon	75	75
Nantes	75	30
Aix	34	10

Documents (5,808)

All Clinical 3,546 Regulatory 1,182 Quality 1,080

Name	Date	Format	
Study TN-400254	10.07.2011	pdf	view
Study TN-034974	19.02.2013	MS Word	view
Study TN-346587	28.04.2005	MS Word	view

Next Steps

This list just scratches the surface of simple solutions Lucidworks Fusion can provide to the complex problems in the life sciences industries. Fusion's out-of-the-box capabilities, security features, and pipelines will unify diverse data and provide each user with a data experience customized to their needs.

Get Started or Learn More

For more information or to start using Fusion, contact us today at lucidworks.com/contact or give us a call at **415-329-6515**.