AILANI™ for Pharma

Intelligent Knowledge Retrieval in Pharma

Searching proprietary & public resources

Research and surveillance of drugs often involves the manual exploration and continuous monitoring of multiple independent data sources which can be both inefficient and time consuming. Furthermore, it is common for the same drug (e.g., paracetamol) to be described using different terms (acetaminophen or efferalgan) which makes the retrieval of relevant data even more difficult.
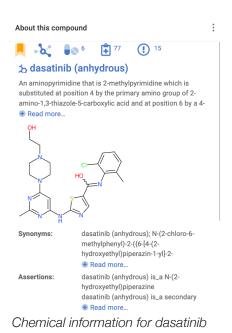
AILANI for Pharma integrates multiple information sources ranging from medical abstracts, full text articles, different clinical registries, FDA drug labels, patents, newsfeeds as well as databases, such as ChEMBL, PubChem, UniProtKB, PDB and Open Targets that can be easily extended and interlinked with proprietary data. The underlying ontologies allow for synonym recognition which enhance the search expe-
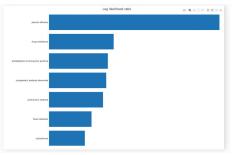
rience. Using the alerting mechanism users can keep up to date with upcoming articles in their field. Relevant documents can be bookmarked, sorted into different folders or exported for further processing.

Specialized chemical, disease and clinical trial reports

AILANI goes beyond the first search results, not only providing links to documents. The system knows what a researcher intended to search for and recognizes drug names as antibody or chemical entity. Linked information such as adverse effects or bioactivity data on binding, ADME or toxicity assays can be accessed.

Within Clinical trial reports information on the drugs used and the sponsors involved in the study can be retrieved. Disease reports provide information on associated genes and known drugs.

Chemical information for dasatinib

Adverse effects of dasatinib

Bioactivity assays with dasatinib

ISRCTN Summary

De-escalation and stopping treatment of imatinib, nilotinib or sprycel in chronic myeloid leukaemia

ISRCTN: 74084226
ClinicalTrials.gov: NCT01804985
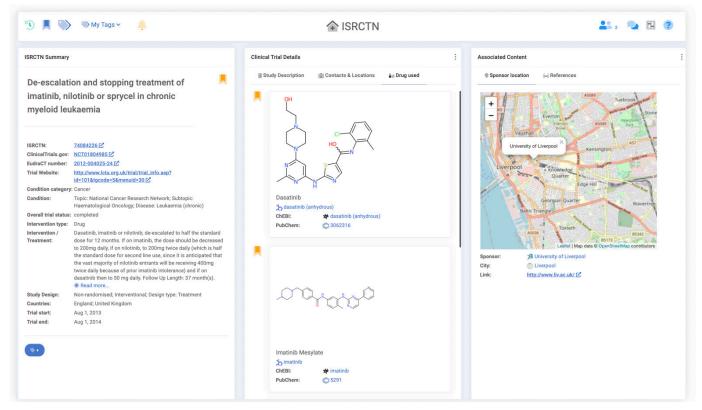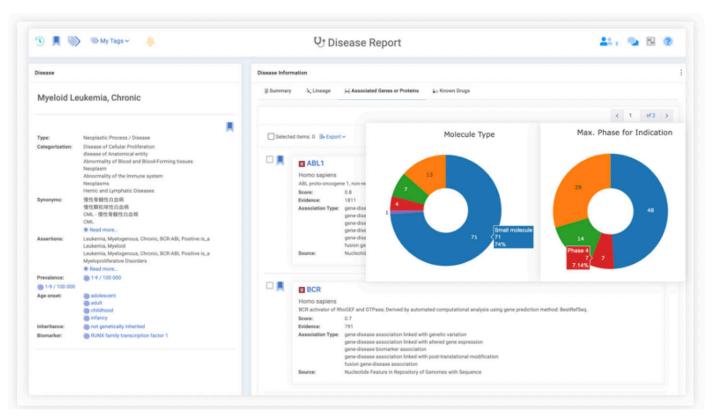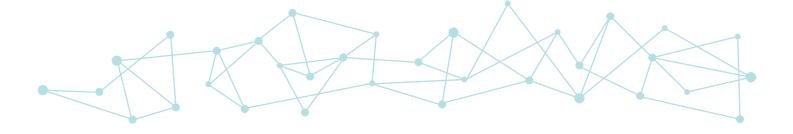EudraCT number: 2012-004025-24
Trial Website: http://www.lctu.org.uk/trial/trial_info.asp?id=101&tgcode=5&menuid=30
Condition category: Cancer
Condition: Topic: National Cancer Research Network; Subtopic: Haematological Oncology; Disease: Leukaemia (chronic)
Overall trial status: completed
Intervention type: Drug
Intervention / Treatment: Dasatinib, imatinib or nilotinib; de-escalated to half the standard dose for 12 months. If on imatinib, the dose should be decreased to 200mg daily, if on nilotinib, to 200mg twice daily (which is half the standard dose for second line use, since it is anticipated that the vast majority of nilotinib entrants will be receiving 400mg twice daily because of prior imatinib intolerance) and if on dasatinib then to 50 mg daily. Follow Up Length: 37 month(s).
Read more...
Study Design: Non-randomised; Interventional; Design type: Treatment
Countries: England; United Kingdom
Trial start: Aug 1, 2013
Trial end: Aug 1, 2014

Clinical Trial Details

Study Description · Contacts & Locations · Drug used

Dasatinib
dasatinib (anhydrous)
ChEBI: dasatinib (anhydrous)
PubChem: 3062316

Imatinib Mesylate
imatinib
ChEBI: imatinib
PubChem: 5291

Associated Content

Sponsor location · References

Sponsor: University of Liverpool
City: Liverpool
Link: http://www.liv.ac.uk/

Clinical trial report on chronic myeloid leukemia

Disease

Myeloid Leukemia, Chronic

Type: Neoplastic Process / Disease
Categorization: Disease of Cellular Proliferation
disease of Anatomical entity
Abnormality of Blood and Blood-Forming tissues
Neoplasm
Abnormality of the immune system
Neoplasms
Hemic and Lymphatic Diseases
Synonyms: 慢性骨髓性白血病
慢性顆粒球性白血病
CML - 慢性骨髓性白血病
CML
Assertions: Leukemia, Myelogenous, Chronic, BCR-ABL Positive is_a Leukemia, Myeloid
Leukemia, Myelogenous, Chronic, BCR-ABL Positive is_a Myeloproliferative Disorders
Read more...
Prevalence: 1-9 / 100 000
Age onset: adolescent
adult
childhood
infancy
Inheritance: not genetically inherited
Biomarker: RUNX family transcription factor 1

Disease Information

Summary · Lineage · Associated Genes or Proteins · Known Drugs

Selected items: 0   Export

ABL1
Homo sapiens
ABL proto-oncogene 1, non-re
Score: 0.8
Evidence: 1811
Association Type: gene-dise
gene-dise
gene-dise
gene-dise
fusion ge
Source: Nucleotid

BCR
Homo sapiens
BCR activator of RhoGEF and GTPase; Derived by automated computational analysis using gene prediction method: BestRefSeq.
Score: 0.7
Evidence: 791
Association Type: gene-disease association linked with genetic variation
gene-disease association linked with altered gene expression
gene-disease biomarker association
gene-disease association linked with post-translational modification
fusion gene-disease association
Source: Nucleotide Feature in Repository of Genomes with Sequence

Molecule Type
Small molecule 71 74%
71 13 7 4 1

Max. Phase for Indication
48 29 14 7
Phase 4 7.14%
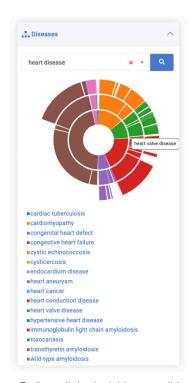
Disease report on chronic myeloid leukemia

Specialized exploration of drugs, targets and clinical trials

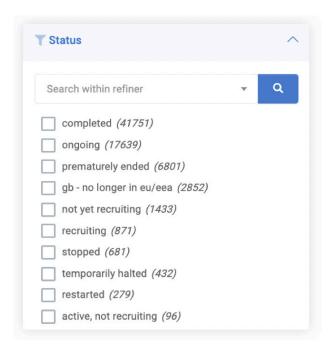AILANI Pharma includes specific repositories on drugs, targets and clinical trials.

The latter for example, aggregates over 480,000 clinical studies from different trial databases such as ClinicalTrials.gov, the European Clinical Trial register and ISRCTN (International Standard Registered Clinical/Social Study Number). This trial repository can be easily extended to include further relevant clinical trial sources and adjusted for the specific use case.

The use of ontologies for the interactive search allows the user to select every clinical study e.g., that features a heart disease, resulting in an aggregation of clinical trials with conditions such as congestive heart failure, cardiomyopathy, or atrial fibrillation.

The results of this search can be then further refined with "statins", in order to present a list of all heart disease studies, in which a statin was used or filtered according to the starting date or the trial status.

Refine clinical trial by status

Refine clinical trial by condition

Intelligent answers for current trends in the pharmaceuticals market

AILANI supports natural language questions while hiding the complex logic from the user. This allows for an easy access to the continuously growing public or hidden corporate knowledge also for non-experts. You might to know the answer to the following questions:

> What interacts with dasatinib?

> How many people worldwide suffer from diabetes?

> Which allele-specific covalent inhibitors against KRAS are being tested in the clinic?

> Which pharmaceutical companies have compounds in development against SARS-CoV-2 protease?

Why choose AILANI for Pharma?

The integration and interconnection of your organization proprietary data along with the AI-based semantic search provides an easy access to public and corporate knowledge in one system.

Comprehensive literature search in the healthcare sector is facilitated, thereby supporting clinical, pharmaceutical, public health and policy decisions.

AILANI for Pharma

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