



Selection

The purpose of a selection is to identify and define what you later want to take action on. A selection criterion is defined based on the selected values. This criterion is used as a query when taking action, e.g. creating a filter or highlight.

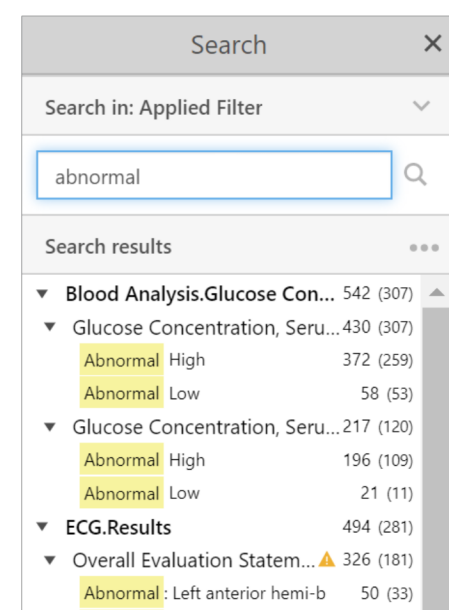
A selection identifies values of interest and does not in itself make anything happen.

Select

...from any field by mouse clicking

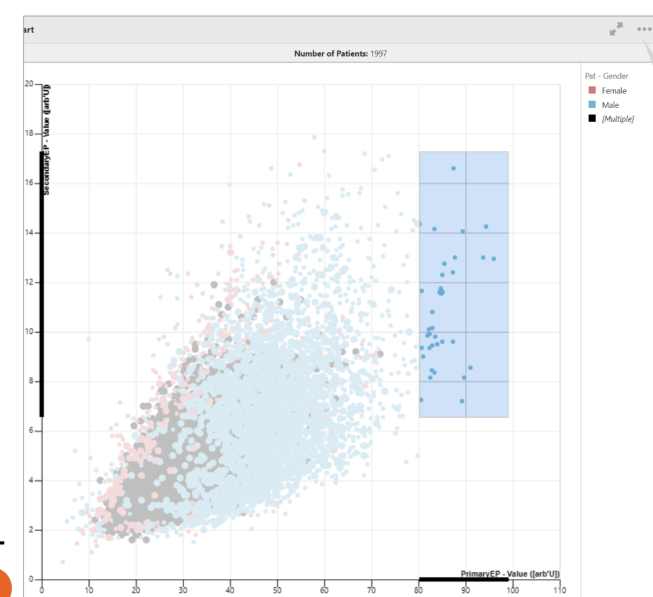
Search for a specified text in the whole database, e.g. abnormal. Individual hits can then be selected, one or multiple values, by mouse clicking.

The values are distinctly displayed.



...from charts by brushing

Values in a chart are selected by brushing the area of interest.



Introduction

Utilizing a web-based interface based on a graph database containing curated and integrated data gives great flexibility in data exploration and visualization. Here we will focus on one aspect, i.e. various ways of selecting data and taking action.

Actions

- Create Filter
- Create Highlight
- Add to List of Members
- Show Selected Holons



Action

Once the data of interest has been selected, several actions are available in the action menu. The actions are independent of each other and multiple actions can be used for the same selection depending on the question.

Any action impacts the entire application.

Act on Selection

Add to List of Members

Create a cohort, with members having the selected values, by adding the values to List of Members.

Members can be handpicked to/from cohorts at any time.

A cohort can later be further compared to other cohorts.

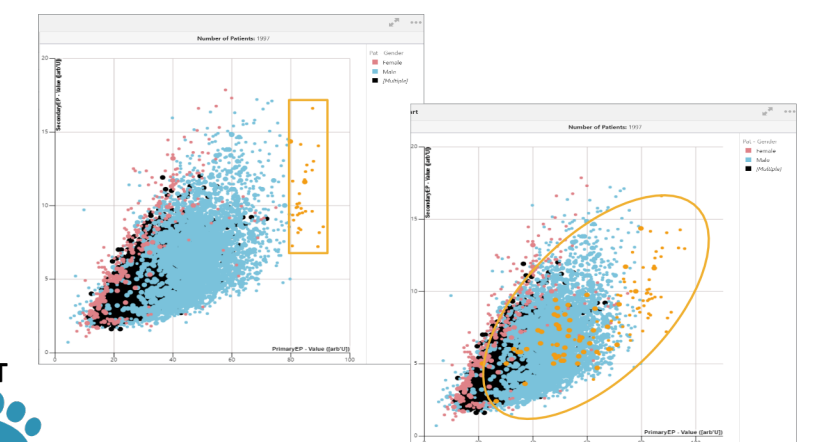
List of Members	List of Members
Patient Cohort A	Patient Cohort A
Patient Cohort B	Number of Patients: 15
Patient Cohort C	A01303@SR-004@Capish Male 1948-03-03
List of Clinical Studies	A01307@SR-004@Capish Male 1962-07-08
	A01802@SR-004@Capish Male 1943-01-06
	A02310@SR-003@Capish Male 1951-09-18
	A02311@SR-003@Capish Male 1961-09-17
	A02427@SR-003@Capish Male 1967-09-11

Highlight

Show selection in context, marked as yellow, by highlighting, in the entire application.

Creating a highlight based on the selected values, includes related values occurring at the same time.

If instead adding a selection to List of Members prior to highlighting, all values for the selected members will be highlighted.

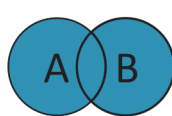


Select or deselect by mouse clicking

A mouse click initiates a selection and by using Ctrl/Alt click multiple values of a field can be combined with OR, AND or AND NOT. It is also possible to select and combine values from different fields.

OR is used as default when selecting multiple values in a field.

A OR B

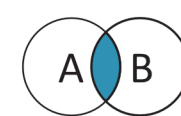


AE - Term	Pats
Headache	561
Dyspnoea	63
Pneumonia	59
Back pain	43
Chest pain	43

Patients have had Headache OR Pneumonia OR both.

AND is used for selection when multiple values of a field should be fulfilled.

A AND B

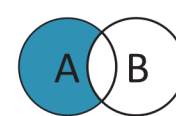


AE - Term	Pats
Headache	561
Dyspnoea	63
Pneumonia	59
Back pain	43
Chest pain	43

Patients have had both Headache AND Pneumonia.

By combining Ctrl click + Alt click, AND NOT can be used to exclude values.

A AND NOT B



AE - Term	Pats
Headache	561
Dyspnoea	63
Pneumonia	59
Back pain	43
Chest pain	43

Patients have had Headache AND NOT Pneumonia.

Conclusion

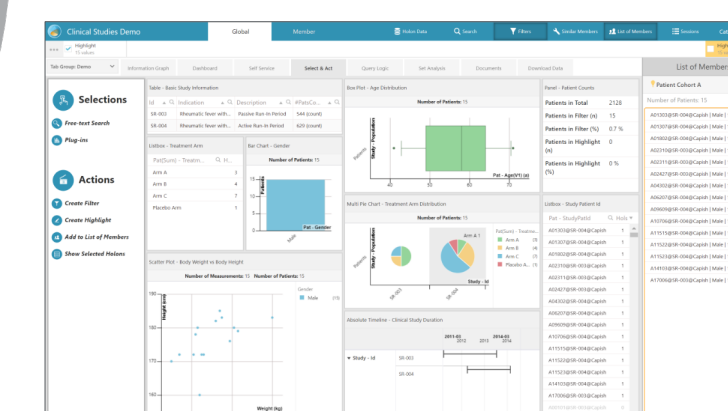
By separating the select and act functions the user's flexibility vastly increases. The user can choose between reducing the dataset based on the selection or explore the selected data in context through highlight. It lets the user easily build cohorts for further exploration as well as study selected data in detail.

Filter

Reduce the data set by filtering.

By using filter on the selected values, the data set is reduced to contain related values.

If instead adding a selection to List of Members prior to filtering, the data set is reduced to contain all values ever related to the members.



Show Selected Holons

Show the database view of the selected data.

Navigate in the database and explore selected values and other related information. Both data and metadata are available.

