



NanoCommons

Nano-Knowledge Community

The European Nanotechnology Community Informatics Platform: Bridging data and disciplinary gaps for industry and regulators



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Data Hackathon 9.10.18

*Using the NanoCommons Knowledge portal for
templates and annotation upload*

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Metadata annotation

- Data e.g. “28.9” is meaningless
- “DLS 28.9 nm of SiO₂ particle without coating prepared by 3h ultracentrifugation drying” includes information about the data and makes it meaningful (at least to some experts who know what “DLS” is)
- Needed information
 - Overall experiment design e.g. 80 zebra fish exposed for 2 days => No Excel template yet
 - Sample treatment information
 - Measured variables information

NanoCommons knowledge portal

<https://ssl.biomax.de/nanocommons/>

user: Hackathon

pwd: hackathon



Nan

Home

Browse Ontologies

Welcome to the NanoCommons Knowledge Database

Browse data sets



Hackathon data set



Toxicology data

Download templates



Download Investigation Template



Download Sample Template

Upload templates



Upload Investigation Template



Upload Sample Template

Excel template for “measured variable” metadata

Download Investigation Template

Select single rows (check box in front of row) or complete template (by checking “Selected items”) for download.

Download selection by clicking “Export” button in upper grey bar and selecting “Excel”.

After saving you can add new values in column “Add new Variable” and/or in column “Add new eNM ID”.

You can have multiple eNM IDs linked to one Variable. In the moment there is no option for deletion of created links.

Download Investigation Template

Add new Variable

Selected items: 0 Show/Hide ▾ Sort by ▾

eNanoMapper						
Add new Variable	Add new eNM ID	Link	Name	Comment	Parents	
<input type="checkbox"/> <input type="button" value="+"/> DLS (nm)	NPO_1469	NPO_1469 dynamic light scattering	dynamic light scattering	[definition source: NCI]	FIX:0000402 light scattering NPO_1712 light scattering spectroscopy	

Excel template for “sample treatment” metadata

Download Sample Template

Select single rows (check box in front of row) or complete template (by checking "Selected items") for download.

Download selection by clicking "Export" button in upper grey bar and selecting "Excel".



After saving you can add new values in column "Add new Variable" and/or in column "Add Description".

In the moment, you can only have a single description for one variable (could be adapted).

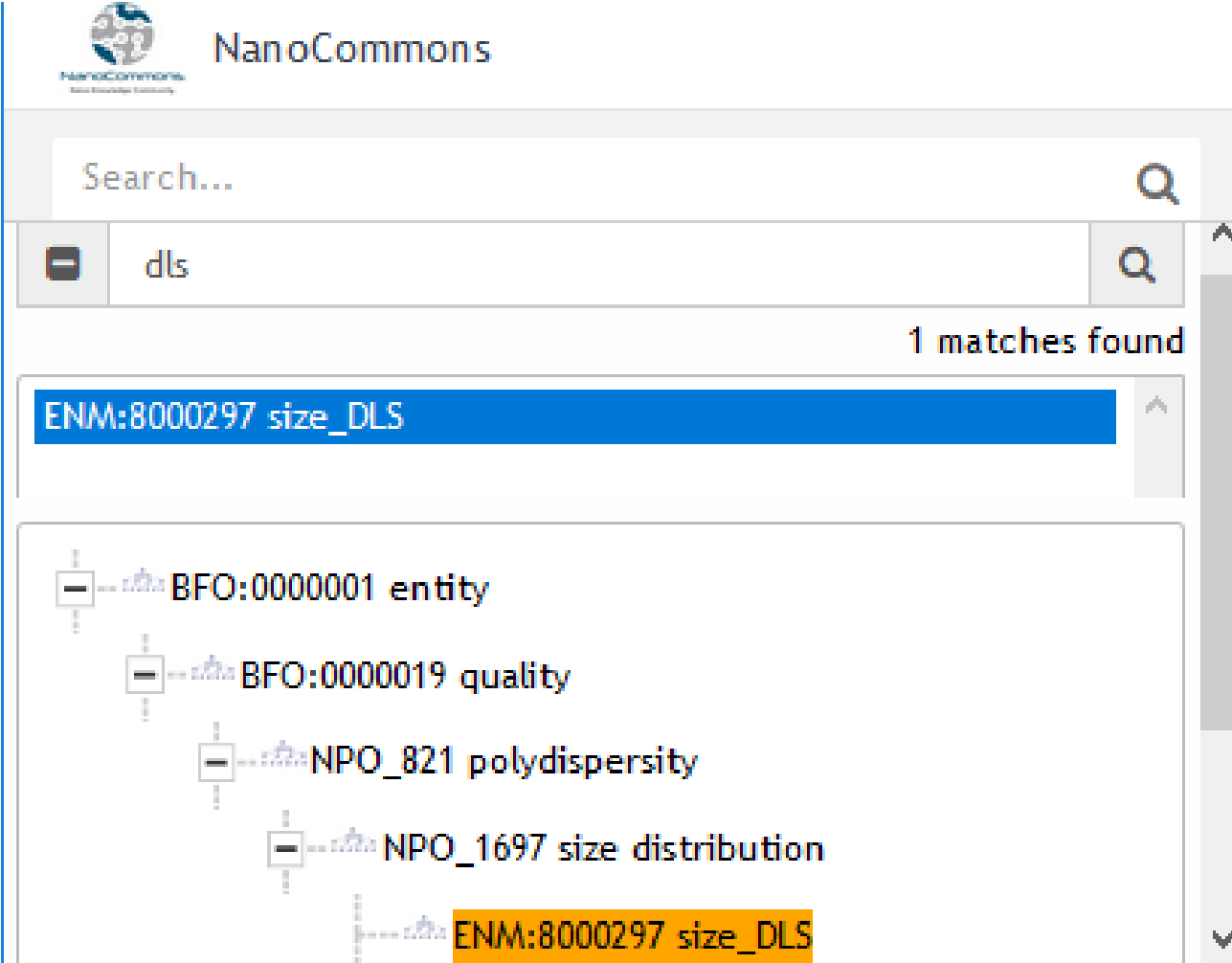
Download Sample Template

Add new Variable

Selected items: 0 Show/Hide ▾ Sort by ▾

		eNanoMapper							
Add new Variable	Add Description	Add new eNM ID	Link	Name	Comment	Parents	Children	Link 2 eNM	
<input type="checkbox"/>	 Was the nanomaterial dried prior to the experiment?	Yes							
<input type="checkbox"/>	 Nanomaterial Drying Method Reference								

eNanoMapper Ontology search



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Search...

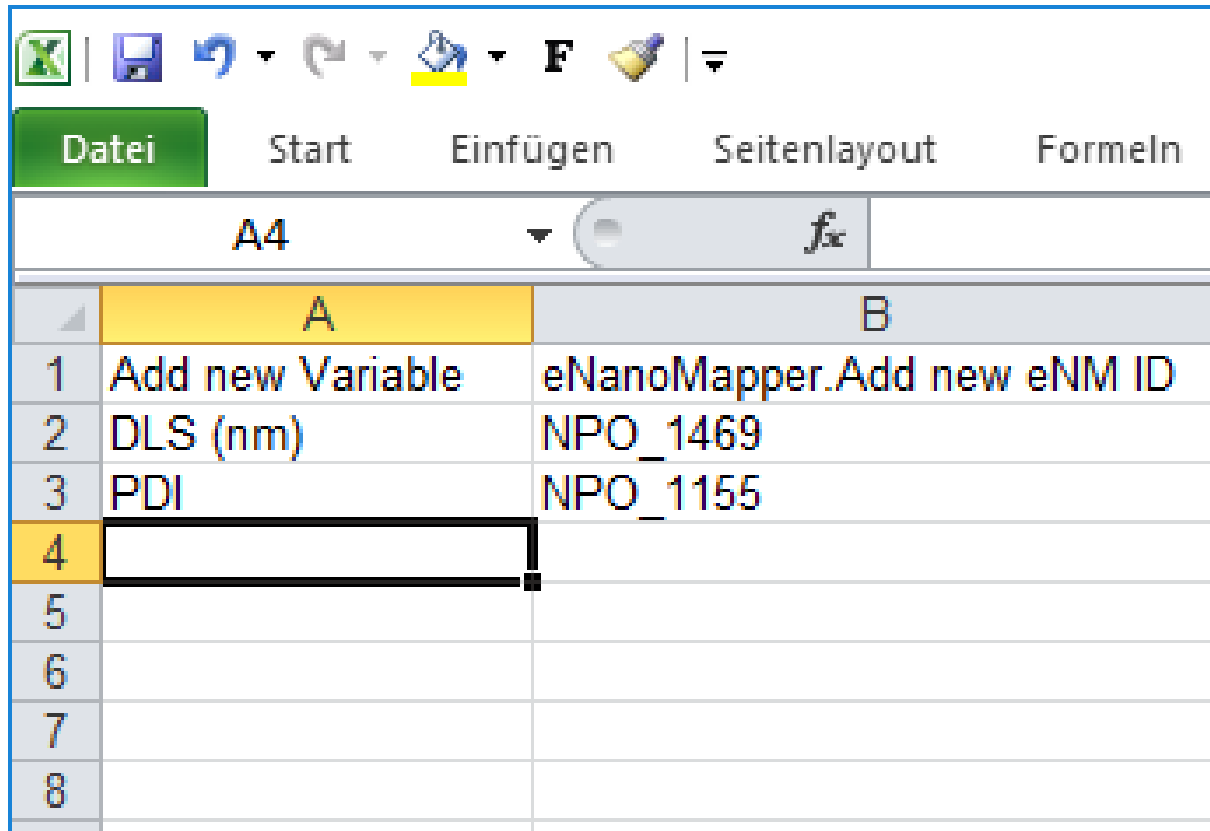
dls

1 matches found

ENM:8000297 size_DLS

- BFO:0000001 entity
 - BFO:0000019 quality
 - NPO_821 polydispersity
 - NPO_1697 size distribution
 - ENM:8000297 size_DLS

Edit Excel template



The screenshot shows the Microsoft Excel interface. The ribbon is set to 'Datei' (File). The active cell is A4. The spreadsheet contains the following data:

	A	B
1	Add new Variable	eNanoMapper.Add new eNM ID
2	DLS (nm)	NPO_1469
3	PDI	NPO_1155
4		
5		
6		
7		
8		

Excel template upload

Uploaded Files Keine Datei ausgewählt.

Upload your edited Excel "Investigation Template" by clicking the "Browse" button.

Upload the data into the data base by clicking the button "Upload Edited Investigation Template".

Go to [here](#) to view result (also check second page).

Outlook

- Visualisations e.g. dose-response curves
- Integrated search and view across multiple databases
=> adding data to DB-X will visualise it immediately in the NanoCommons KB portal
- Integration with Analysis Tools



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Thank you

Any Questions?

***2nd General Assembly
Athens, 08-09 October 2018***