ISA-TAB-Nano Supporting the Nanoinformatics Community*

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*adapted from
1. https://nciphub.org/resources/1615/about
2. https://dx.doi.org/10.6084/m9.figshare.1598082.v1

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ISA-TAB-Nano: motivation and current status

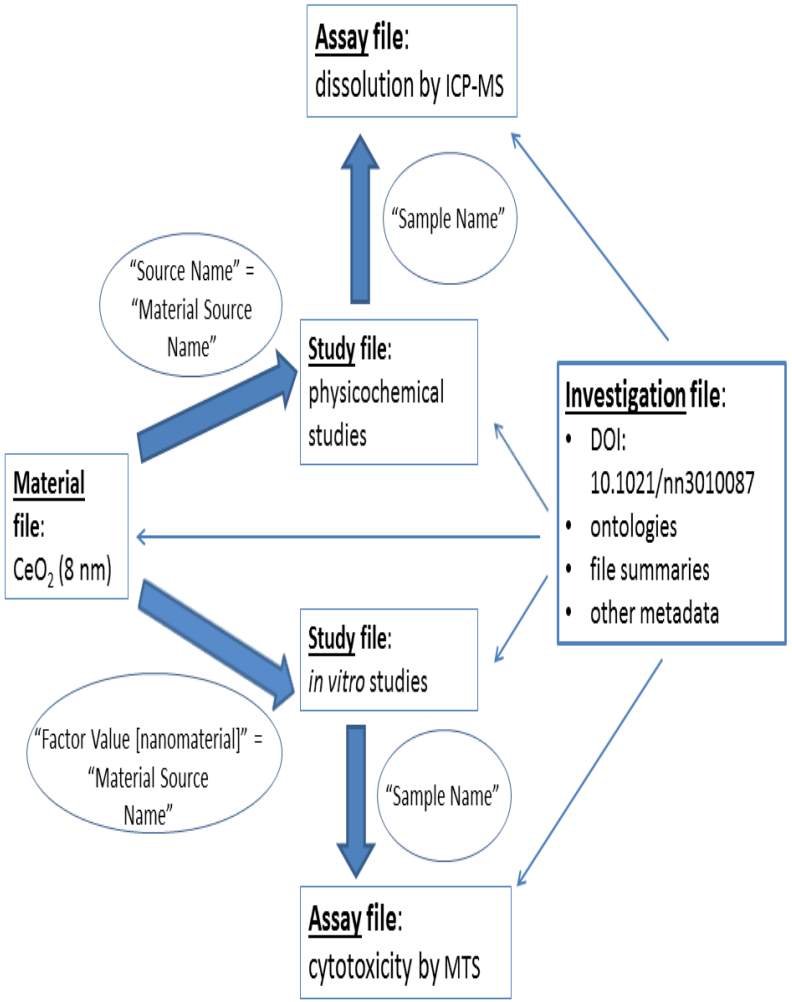
- Proposed nanoscience community data EXCHANGE standard
  - Can record or link to data
  - Metadata standardisation PROMOTED
    - e.g. ontology links supported

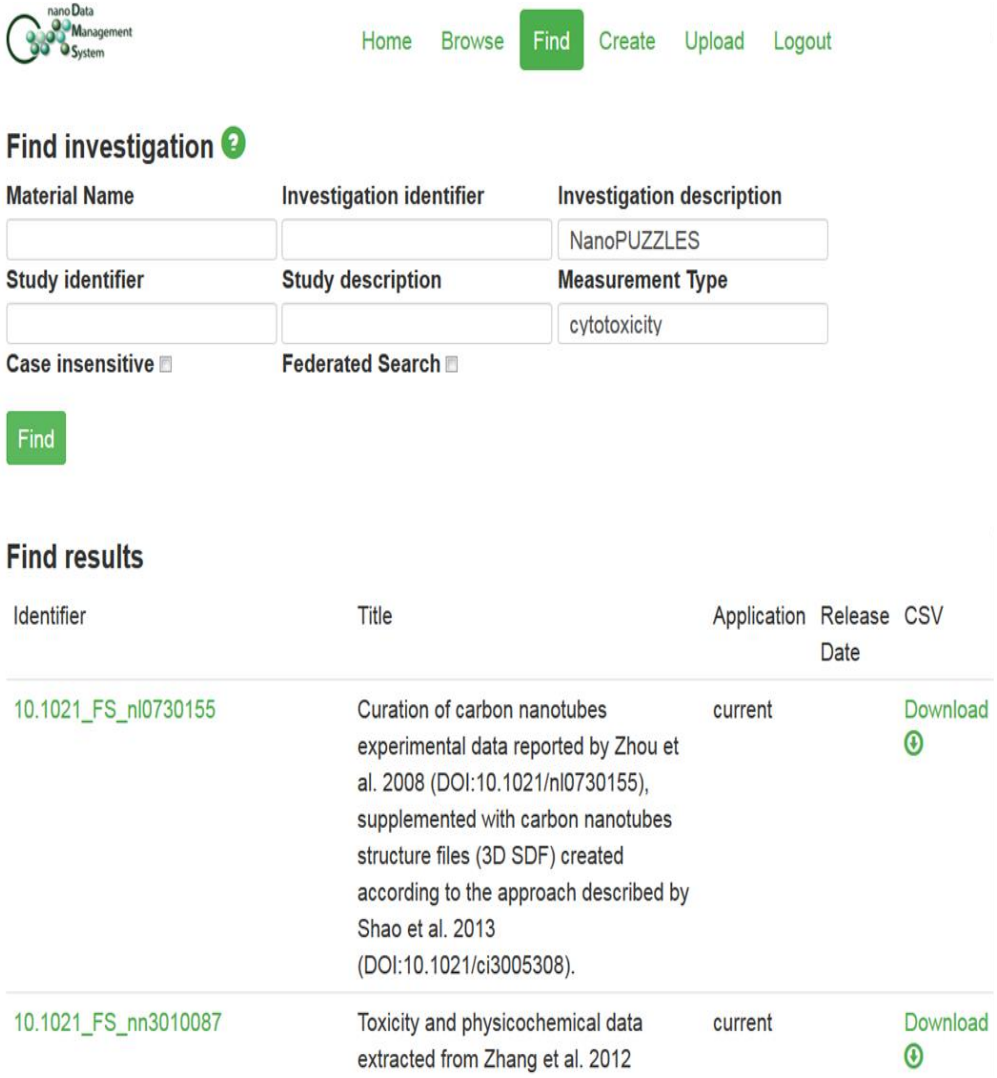
- Interconnected "spreadsheet-like" file *types*
  - **I**nvestigation, **S**tudy, **A**ssay, Material – **TAB**ular files
  - Flexible – *not* fully specified fields, but field *types* e.g. factors
  - Business rules promote standardised addition of fields

- Iterative development
  - Adapted from ISA-TAB by U.S. Nano WG
  - Original publication in 2013
  - Current version: 1.2

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NanoPUZZLES datasets -> MODERN database





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Outlook: Nanoinformatics community

- ISA-TAB-Nano specification under review
  - work started towards version 1.3
  - ongoing discussions
  - partly prompted by issues identified within NanoPUZZLES
  - will aim to harmonise with FORTHCOMING revised ISA-TAB specification

- Proposed development of community accepted templates
  - initial suggestion
  - to be led by ISA-TAB-Nano developers

- Resources being developed by other projects
  - e.g. tools for creating and parsing ISA-TAB-Nano files under development within eNanoMapper
  - e.g. KNIME workflows for analysing ISA-TAB-Nano datasets under development within MODERN

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