



Seek platform

Share scientific research



FAIR principles

- SEEK is being developed and funded as part of the FAIRDOM initiative
- Developed by university of Manchester -> v1.2
- FAIR :
 - Findable
 - Accessible
 - Interoperable
 - Reusable
- Individuals and machines



SEEK platform

- **Web-based** resource for **sharing** heterogeneous scientific **research**
 - datasets
 - models
 - processes
 - research outcomes
- It preserves associations between them
- The research can be **organized** based on the ISA-Tools format
 - Investigations
 - Studies
 - Assays (experiments)

ISA standard

Investigation

- project context
- Growth control of the eukaryote cell: a systems biology study in yeast

Study

- a unit of research
- Study of the impact of changes in flux on the transcriptome under different nutrient limitations

Assay

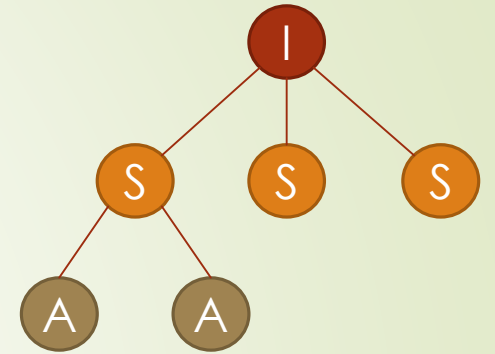
- analytical measurement
- Protein expression profiling using mass spectrometry

Format

- Tabular
- Easy-to-read for scientists

ISAtools

- Java tools to help scientists to make ISAtab files



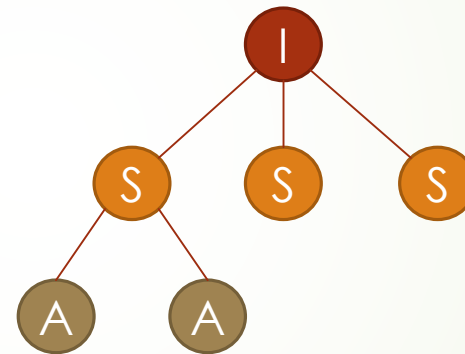


Seek and ISA

- ISA-tab = complete biological metadata
 - Very hard to create a 'valid' ISA-Tab ...
 - but **all** your experimental details are captured
 - *Experimental factor, rate, genotype, etc.*
- Seek is just based on the ISA architecture
 - Just the **more important** metadata are captured
 - *Organism, protocol, sample, technology type, data files*

Several items

- Yellow pages
 - Institution
 - Project
- Biological Experiments
 - Investigation
 - **S**tudy
 - **A**ssay
- Assets
 - Data file (upload and remote)
 - Model (sbml)
 - SOP (protocoles)
 - Publication



- Activities
 - Presentation
 - Event
- Samples
 - Sample
 - Sample type
 - Strain
 - Organism

Several items

- Yellow pages

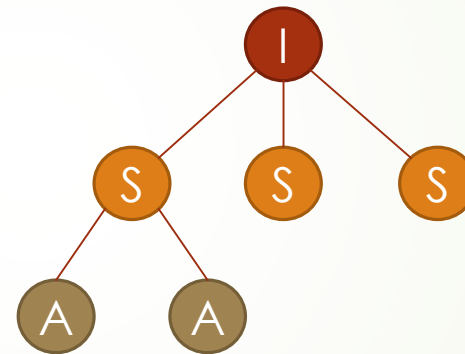
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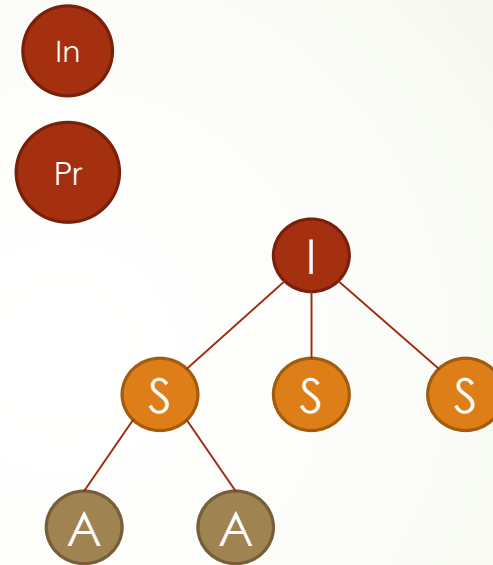
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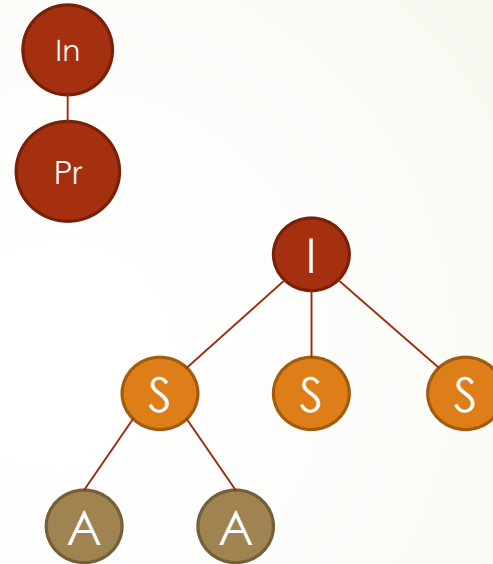
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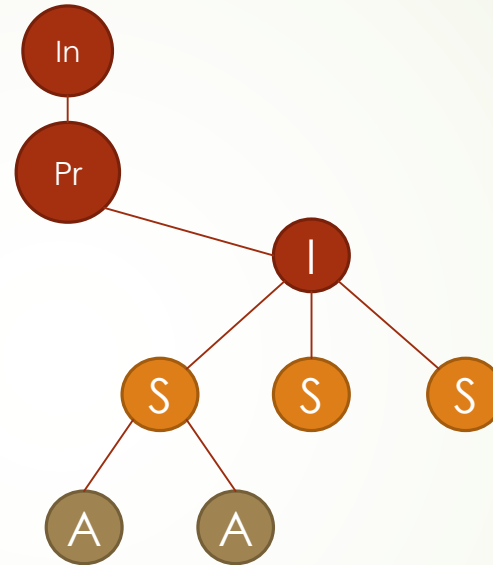
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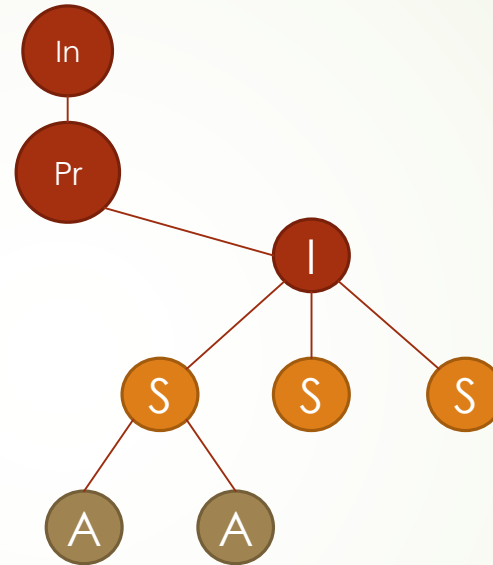
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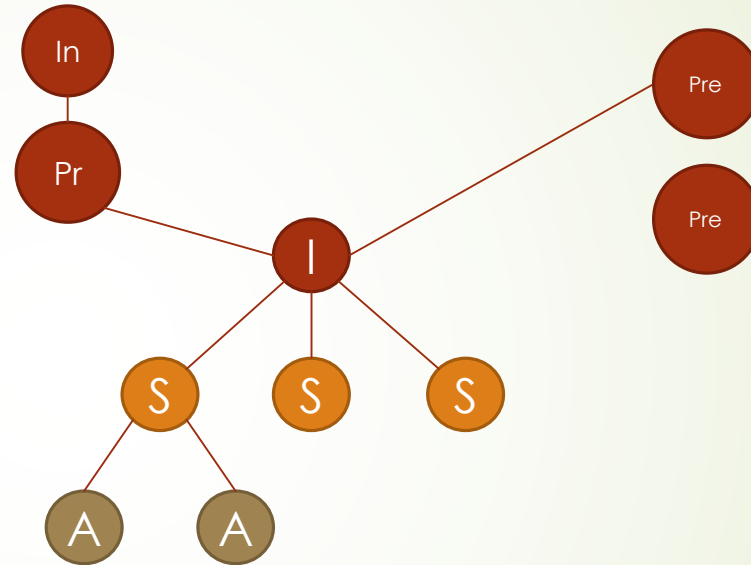
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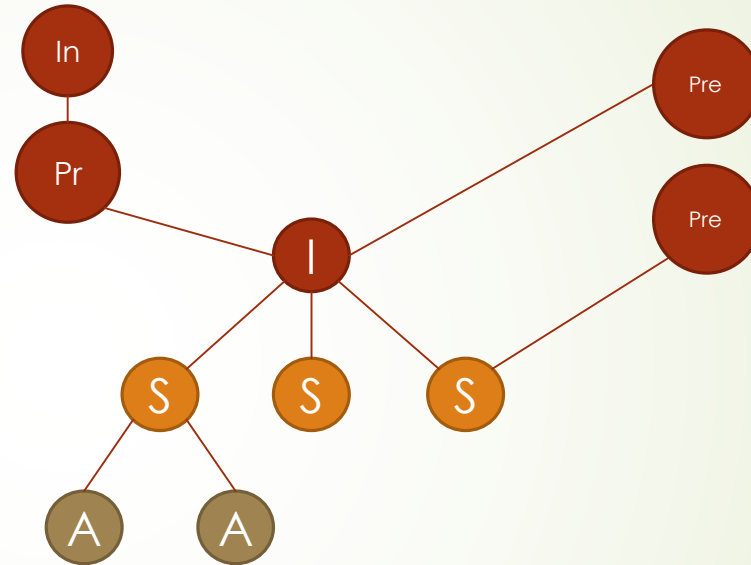
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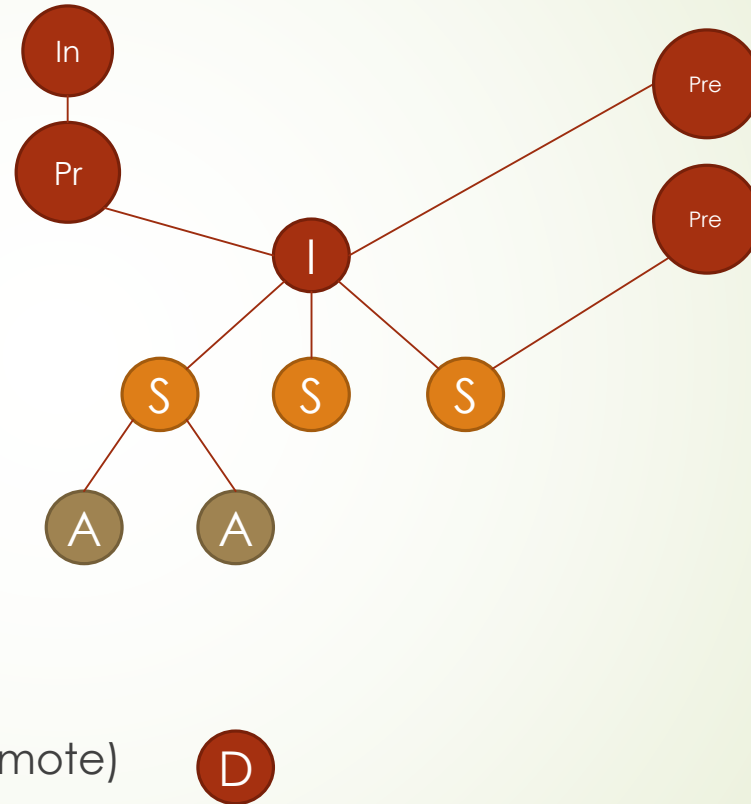
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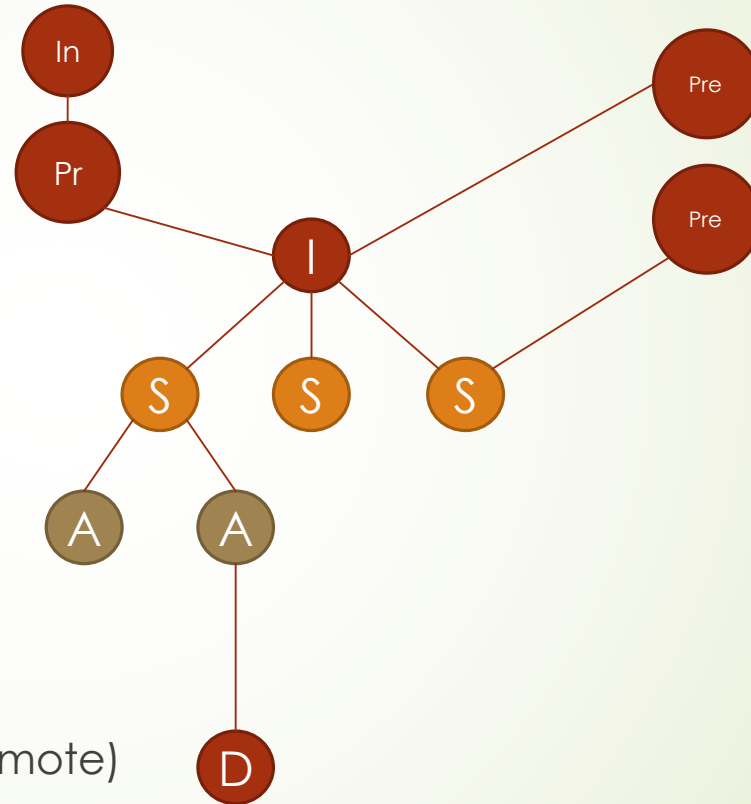
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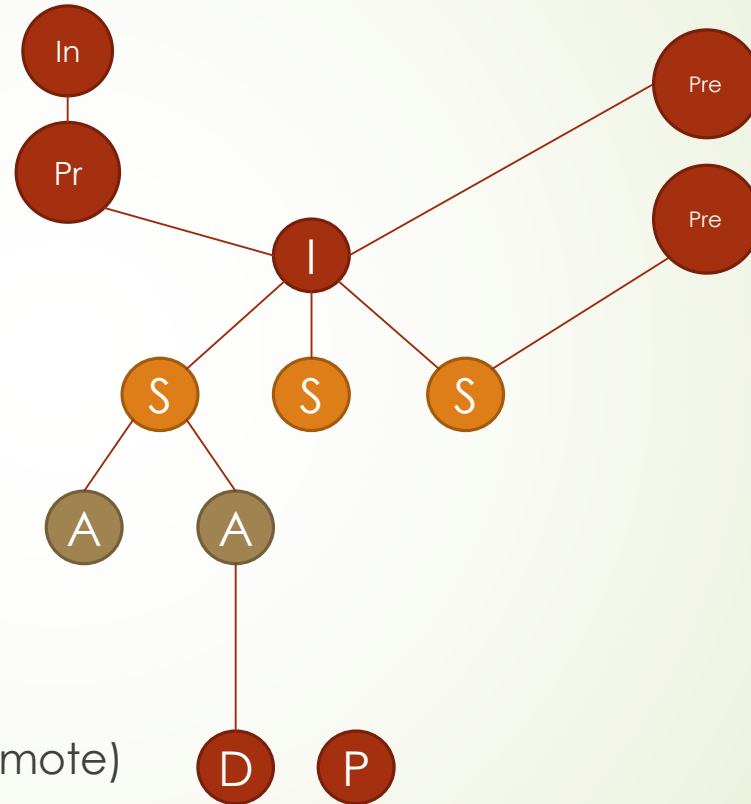
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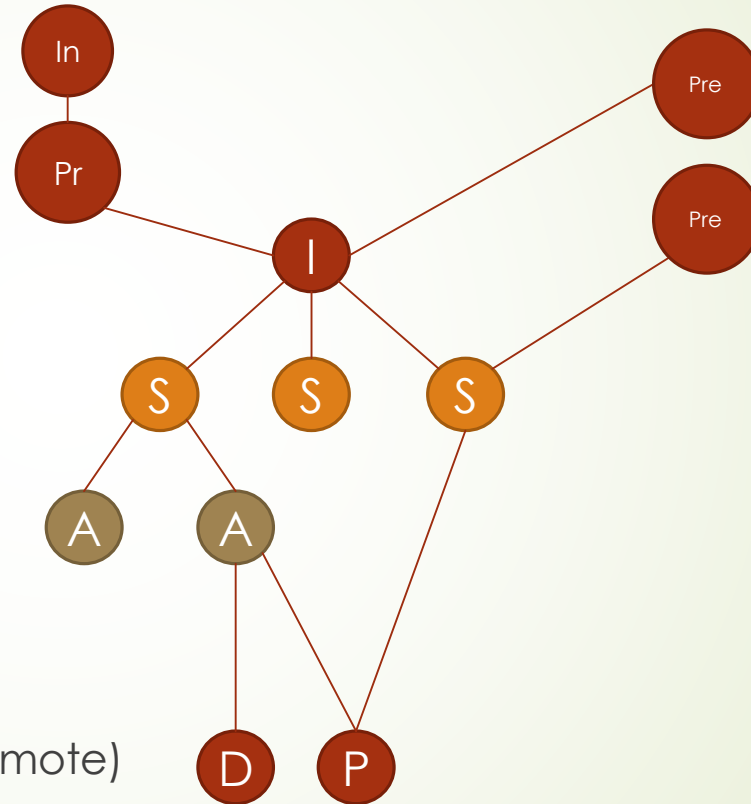
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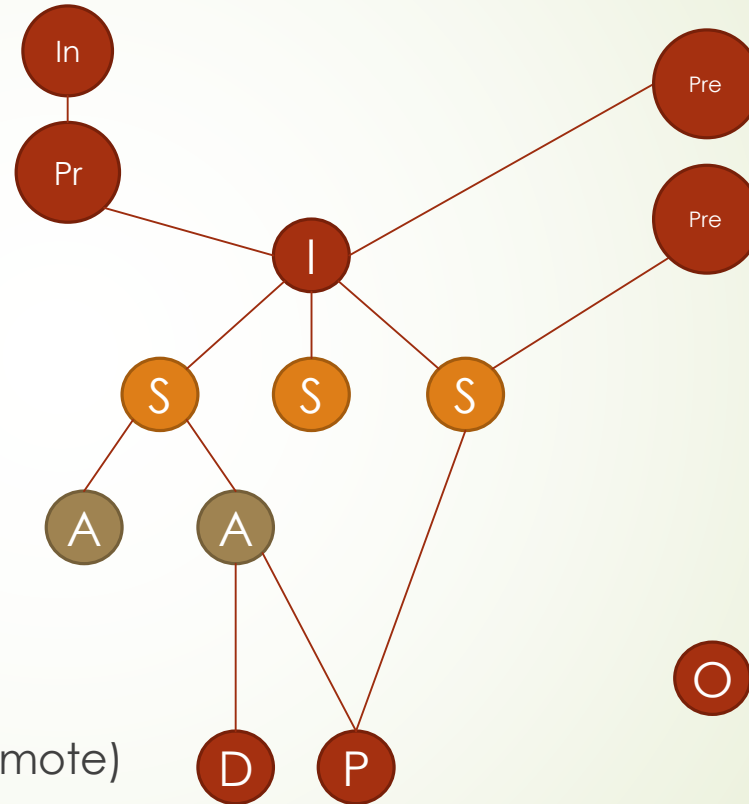
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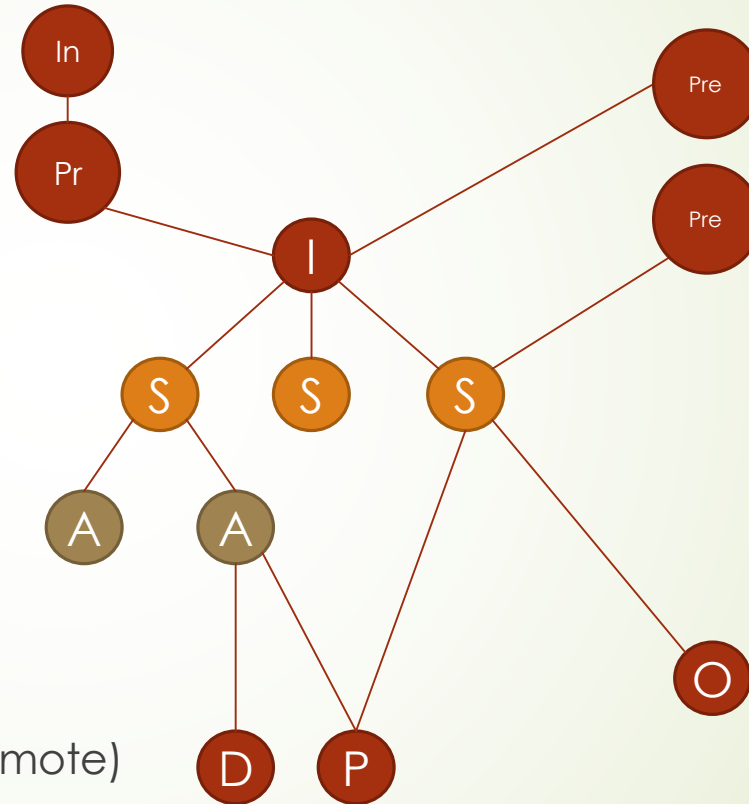
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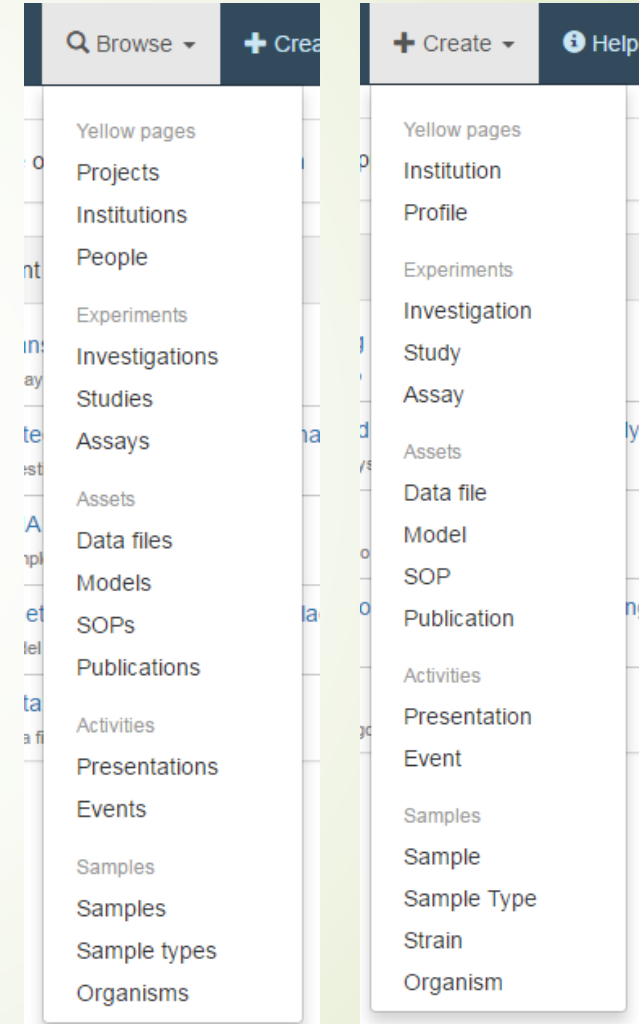
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SEEK web interface

➤ Simple menu

- Browse
- Create
- Search
- Help





SEEK web interface

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SEEK web interface


[Home](#) / [Assays Index](#)

Assays


16 Assays visible to you, out of a total of 16

[+ New Assay](#)

Latest A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Other All

 Ch14 (RAPSOp panel)

Rapsodyn



Field phenotyping of WOSR-206 (RAPSODYN panel) or WOSR-69 (common accession between GENERGY and RAPSODYN panel)

Chateauroux - 2013-2014

Contributor: [Coline THOMAS](#)

Assay type: [Organism or strain characterisation](#)

Technology type: [Technology type](#)

Investigation: [Phenotyping](#)



Study: [WP3 field phenotyping](#)

Organisms: [Brassica napus](#)


SOPs: [No SOPs](#)

Data files: [No Data files](#)

Created: 25th Oct 2016 at 22:15, Last updated: 25th Oct 2016 at 22:19

 clinical chemistry analysis 

Cesgo project



Contributor: [Cyril Monjeaud](#)

Assay type: [Reactomics](#)

Technology type: [Chemostat measurements](#)

Investigation: [Detection Of QTL and functional genomics study ...](#)

Study: [Detection Of QTL and eQTL with effects on osmor...](#)

Organisms: [Oncorhynchus mykiss \(chemostat\)](#)

SOPs: [No SOPs](#)

Data files: [Data day 2](#)

Created: 14th Oct 2016 at 13:16




SEEK web interface

- Simple menu
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- Index for each type of item
- One page per item
 - Description

SEEK web interface

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 **clinical chemistry analysis**

[Unsubscribe](#) [New Assay based on this one](#) [Administration](#)

No description specified

SEEK ID: <http://cloud-84.genouest.org/assays/2>

Class: Experimental assay

Contributor: [Cyril Monjeaud](#)

Projects: [Cesgo project](#)

Investigation: Detection Of QTL and functional genomics study of osmoregulation capacities in the rainbow trout (*Oncorhynchus mykiss*)


Study: Detection of qtl and eqtl with effects on osmoregulation capacities in the rainbow trout (*Oncorhynchus mykiss*)

Assay type: [Reactomics](#)

Technology type: [Chemostat measurements](#)

Organisms: [Oncorhynchus mykiss](#) (chemostat)

Contributor and Creators


Other creators

Yvan Le Bras

Activity

Views: 7
Created: 14th Oct 2016 at 13:16

Tags



SEEK web interface

- ▶ Simple menu
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 - ▶ Item tree

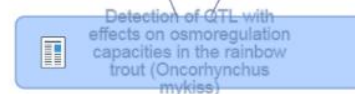
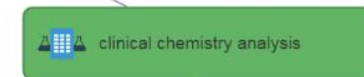
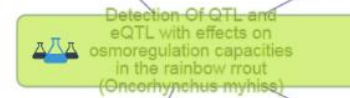
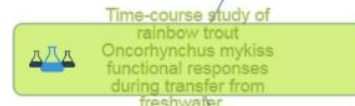
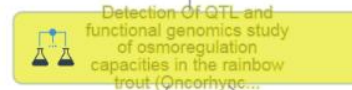
Seek web interface

Project

Investigation

Study

Publication



Assay

Study

Assay

Data file



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 - ▶ **Related items for each item**

SEEK web interface

Related items

People (1)

Projects (1)

Investigations (1)

Studies (1)

Data files (1)

Cyril Monjeaud 



Projects: Cesgo project, EnginesOn project

Institutions: GenOuest, EnginesOn

Email: Cyril.Monjeaud@irisa.fr

Web page: *Not specified*

Phone: *Not specified*

Skype: *Not specified*

Disciplines: Bioinformatician

Roles: Member

Expertise: Software Engineering, Data Management

Tools: [galaxy](#), Web services, cloud, Workflows, docker, Python



SEEK production for Cesgo

- <https://seek.cesgo.org>
- Accessibility :
 - Need a GenOuest account
 - Connection to seek.cesgo.org with GenOuest credentials
 - During the first connection
 - Ask creation of a new project ...
 - .. or ask to join with existing project



SEEK and data

- Seek can manage data files
 - Local : upload with seek
 - Remote : url
- Cesgo offers a web interface to manage data files
 - <https://data-access.cesgo.org>
 - This web application can :
 - Access to GenOquest data (home, group, omaha)
 - Generate public links from private data