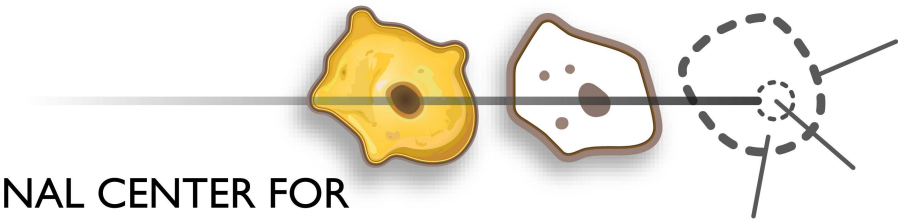
The BioPortal OOR

http://bioportal.bioontology.org

Mark A. Musen and the BioPortal team

Stanford University



NATIONAL CENTER FOR

BIOMEDICAL ONTOLOGY

THE NATIONAL CENTER FOR BIOMEDICAL ONTOLOGY

BioPortal 2.0

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Welcome

Welcome to the National Center for Biomedical Ontology's BioPortal. BioPortal is a Web-based application for accessing and sharing biomedical ontologies.

New features in BioPortal 2.0 include:

- Full ontology navigation using **Flash visualization**
- **Web-service access** to BioPortal content and capabilities, which enables developers to use our BioPortal services in their tools.
- Ability to add **Marginal Notes** to classes in BioPortal ontologies, a feature that enables the community to comment on ontologies and to discuss their contents
- Ability to create **Point to Point Mappings** between concepts in different BioPortal ontologies
- **Bulk export of ontology-to-ontology mappings** in RDF format
- **Navigation of multiple ontologies**, which enables users to have several ontologies opened simultaneously in different tabs in the user interface
- **URIs for all ontology content**, which enable developers to access and share BioPortal content from their applications
- **Improved support through Protégé** for ontologies in OWL format

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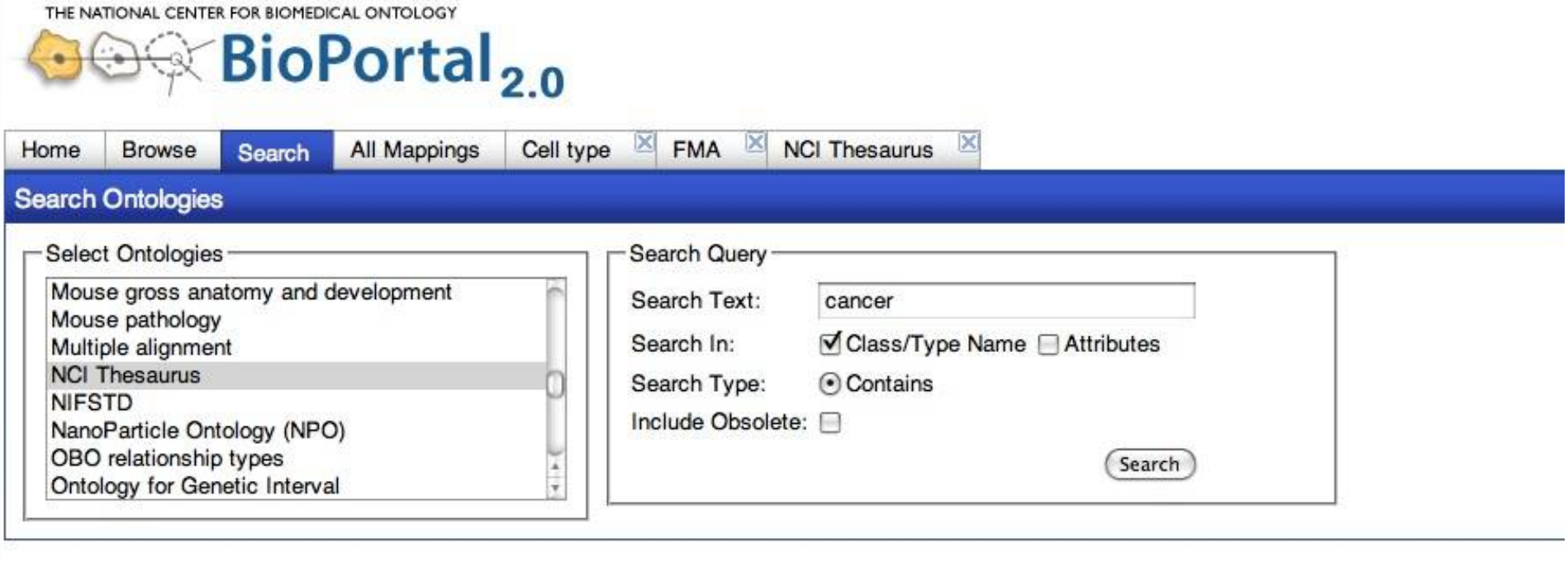
Submit New Ontology

Ontology Name	Format	Version	Author	Uploaded On	
African Traditional Medicine	OBOF	1.0.1	Ghislain Atemezing	04/15/2008	
Amino Acid	OWL-FULL	1.2		01/16/2007	Explore
Amphibian gross anatomy	OBOF	1.8	AmphiAnat list	07/30/2008	Explore
Animal natural history and life history	PROTEGE	See Remote Site	Http://animaldiversity Administrators	08/20/2008	
Basic Vertebrate Anatomy	OWL-FULL	1.1		01/16/2007	Explore
Bilateria anatomy	OBOF	See Remote Site	Thorsten Heinrich	08/20/2008	
Biological imaging methods	OBOF	1.1	Image Administrators	07/30/2008	Explore
Biological process	OBOF	1.274	Gene Ontology	08/20/2008	Explore
Biomedical Resource Ontology	OWL-DL	2.0	Daniel Rubin, Natasha Noy	08/06/2008	Explore
BIRNLex	OWL-DL	1.3.1	William Bug	03/24/2008	Explore
BRENDA tissue / enzyme source	OBOF	See Remote Site	BrendaTissue Administrators	08/20/2008	
C. elegans development	OBOF	1.3	Worm_development Administrators	07/30/2008	Explore
C. elegans gross anatomy	OBOF	1.7	Http://brebiou Administrators	07/30/2008	Explore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FMA
NCI Thesaurus
Search Ontologies
Select Ontologies
Mouse gross anatomy and development
Mouse pathology
Multiple alignment
NCI Thesaurus
NIFSTD
NanoParticle Ontology (NPO)
OBO relationship types
Ontology for Genetic Interval
Search Query
Search Text:
cancer
Search In:
Class/Type Name
Attributes
Search Type:
Contains
Include Obsolete:
Search

Home | Browse | Search | All Mappings | Cell type | FMA | NCI Thesaurus

Search Ontologies

Select Ontologies

- Mouse gross anatomy and development
- Mouse pathology
- Multiple alignment
- NCI Thesaurus
- NIFSTD
- NanoParticle Ontology (NPO)
- OBO relationship types
- Ontology for Genetic Interval

Search Query

Search Text: cancer

Search In: ☑ Class/Type Name ☐ Attributes

Search Type: ◉ Contains

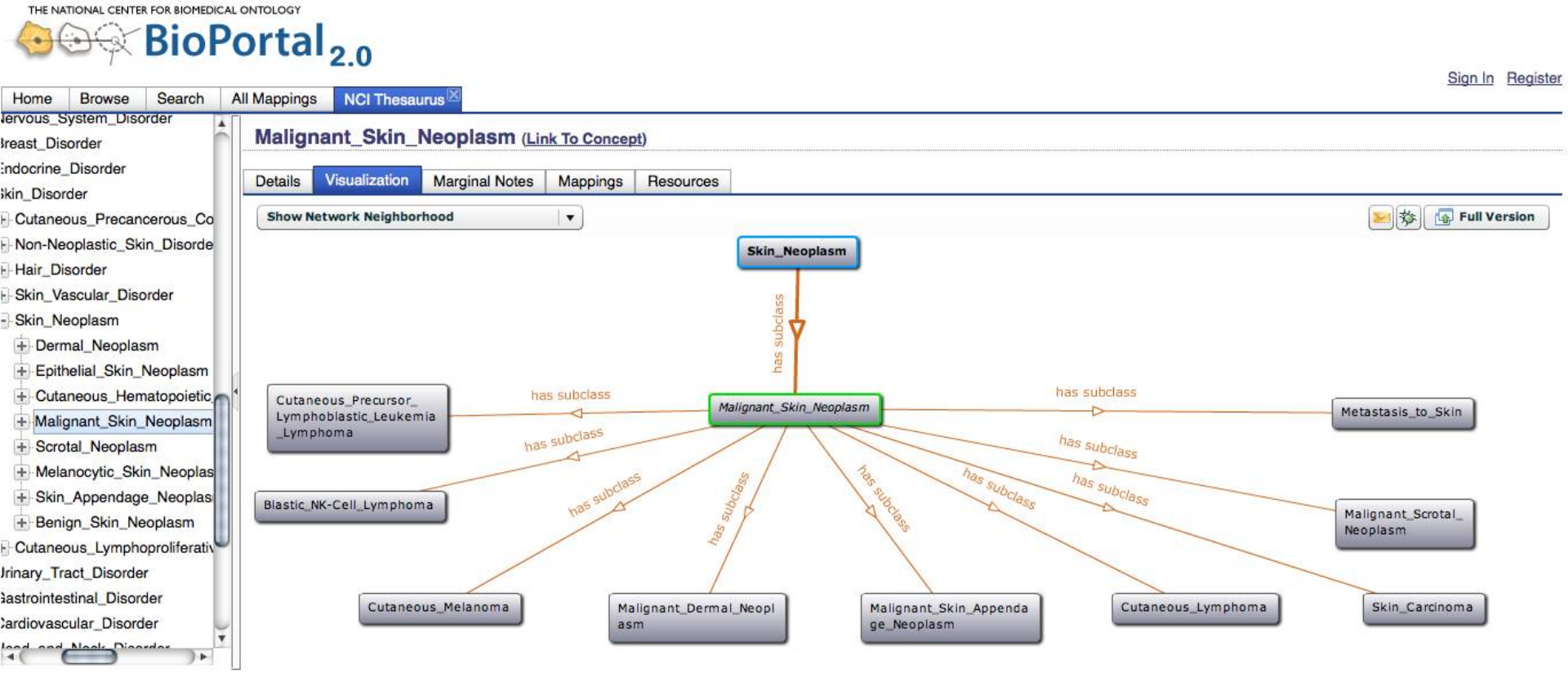
Include Obsolete: ☐

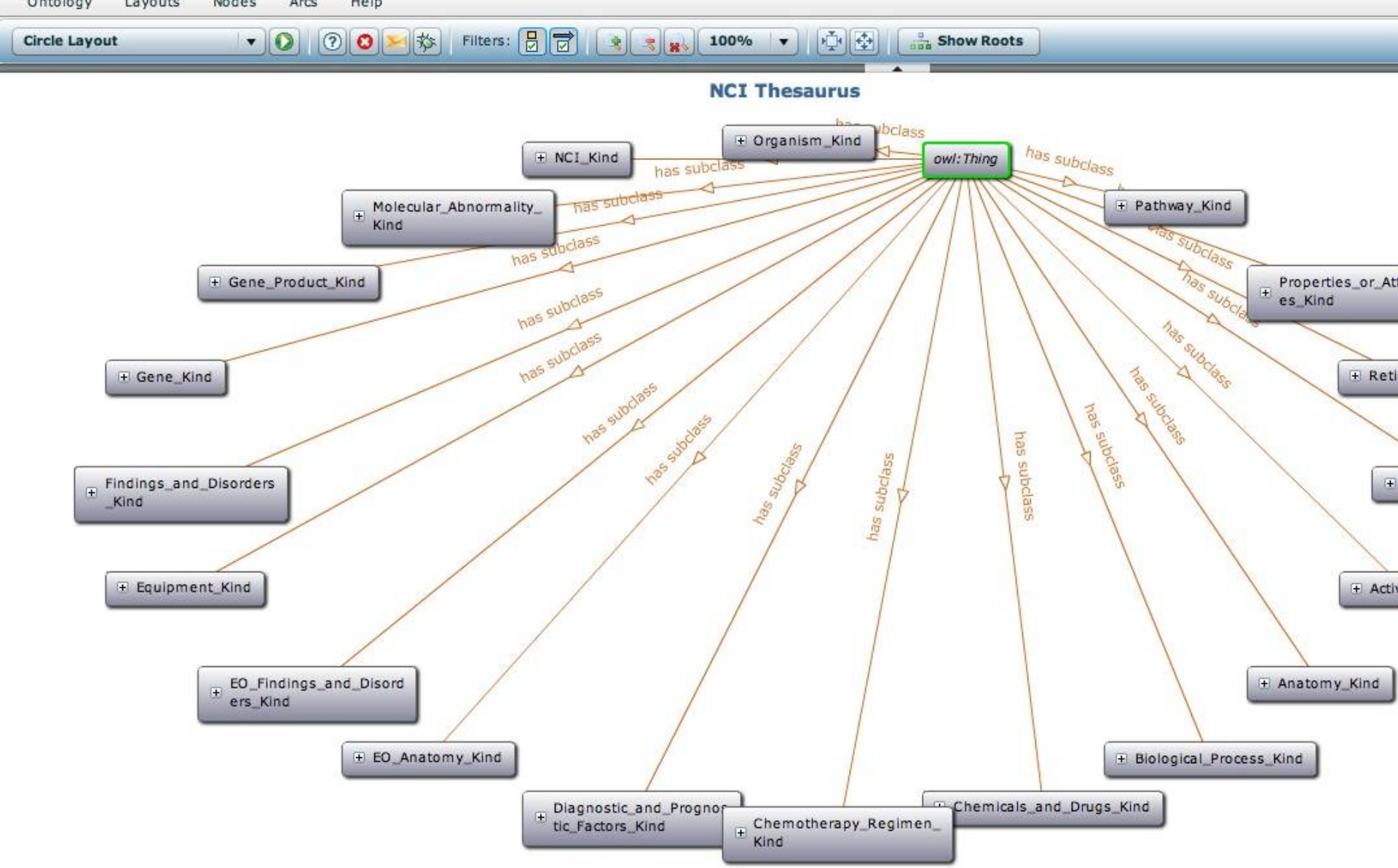
Search

NCI Thesaurus

Concept Name	Found In
Secondary_Gleason_Score_for_Prostate_**Cancer**	Concept Name
Prevention_of_Skin_**Cancer**	Concept Name
Breast_**Cancer**_Pathologic_Regional_Lymph_Nodes_TNM_Finding	Concept Name
Breast_**Cancer**_Treatment	Concept Name
Exocrine_Pancreatic_**Cancer**_pM1_TNM_Finding	Concept Name
Vermont_**Cancer**_Center_at_the_University_of_Vermont	Concept Name
Kidney_**Cancer**_pN2_TNM_Finding	Concept Name

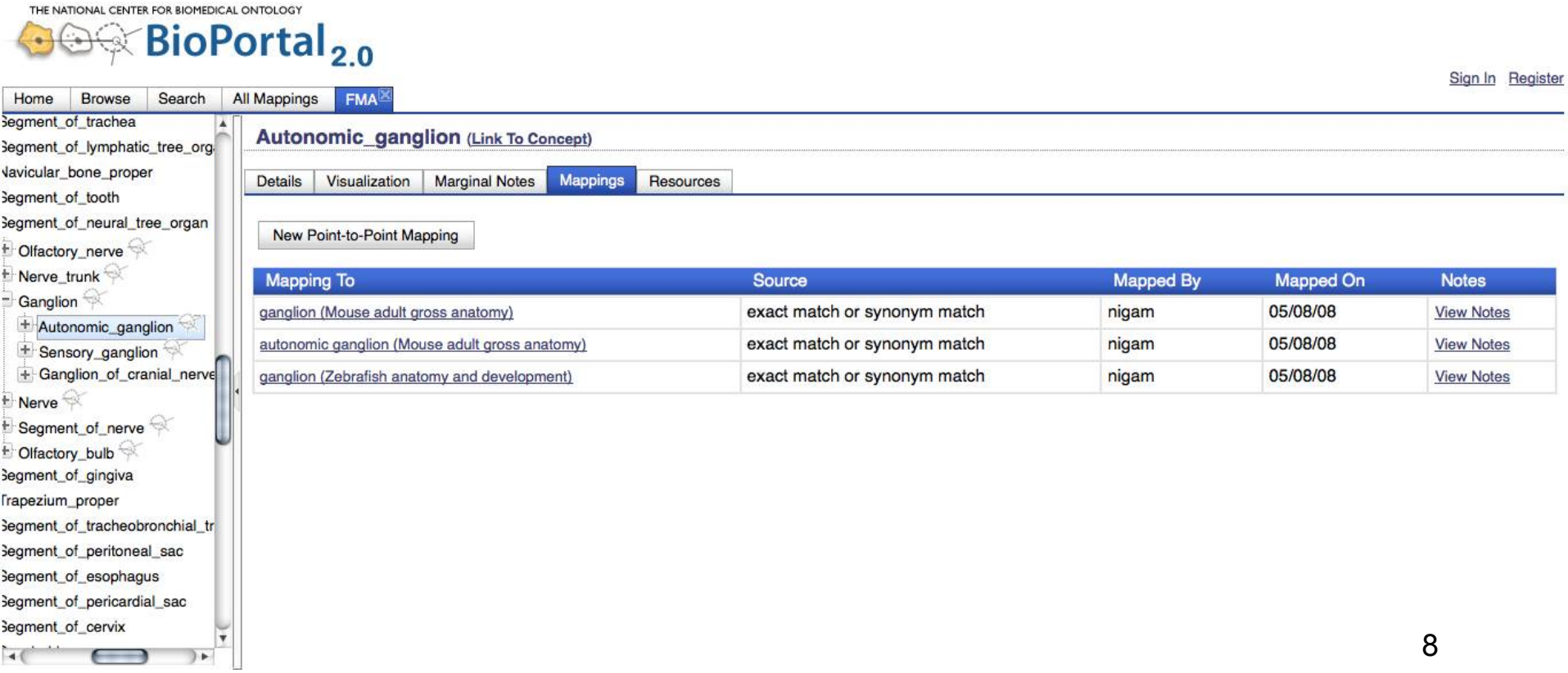
NCI Thesaurus in BioPortal



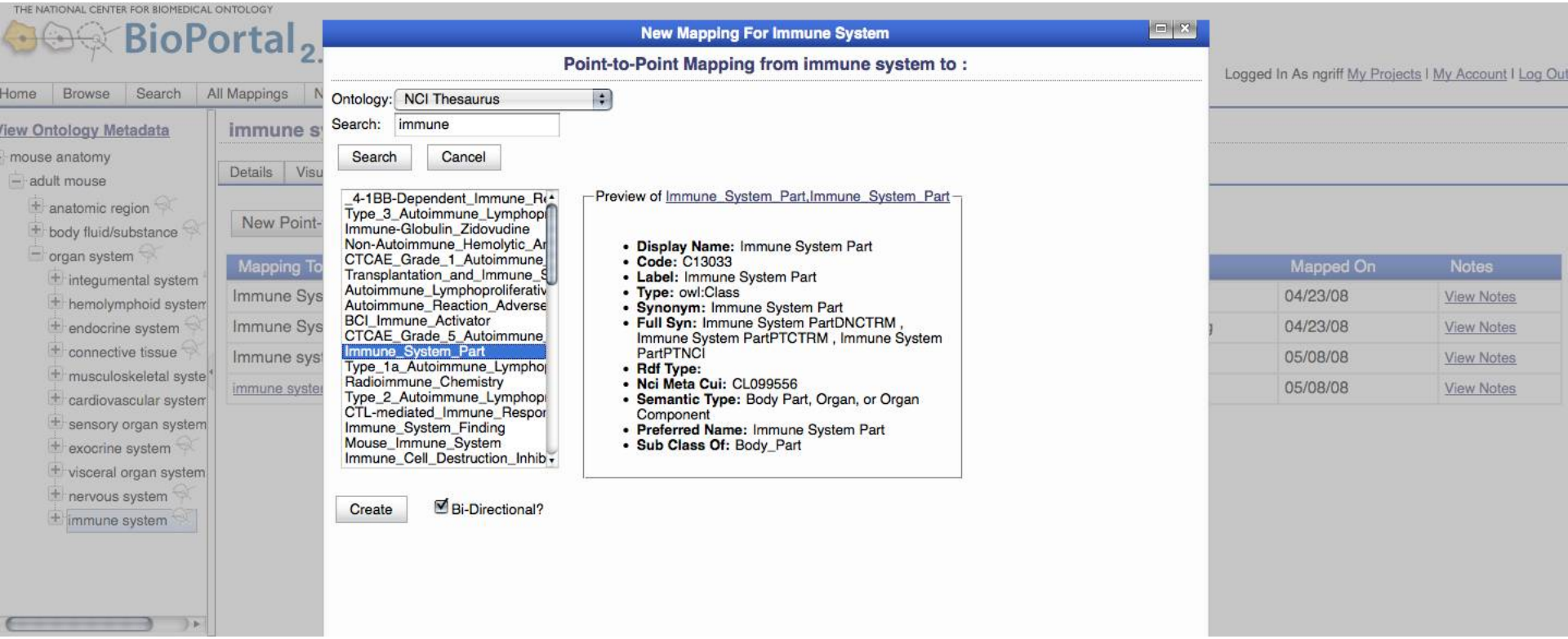


Circle Layout visualization of NCI Thesaurus

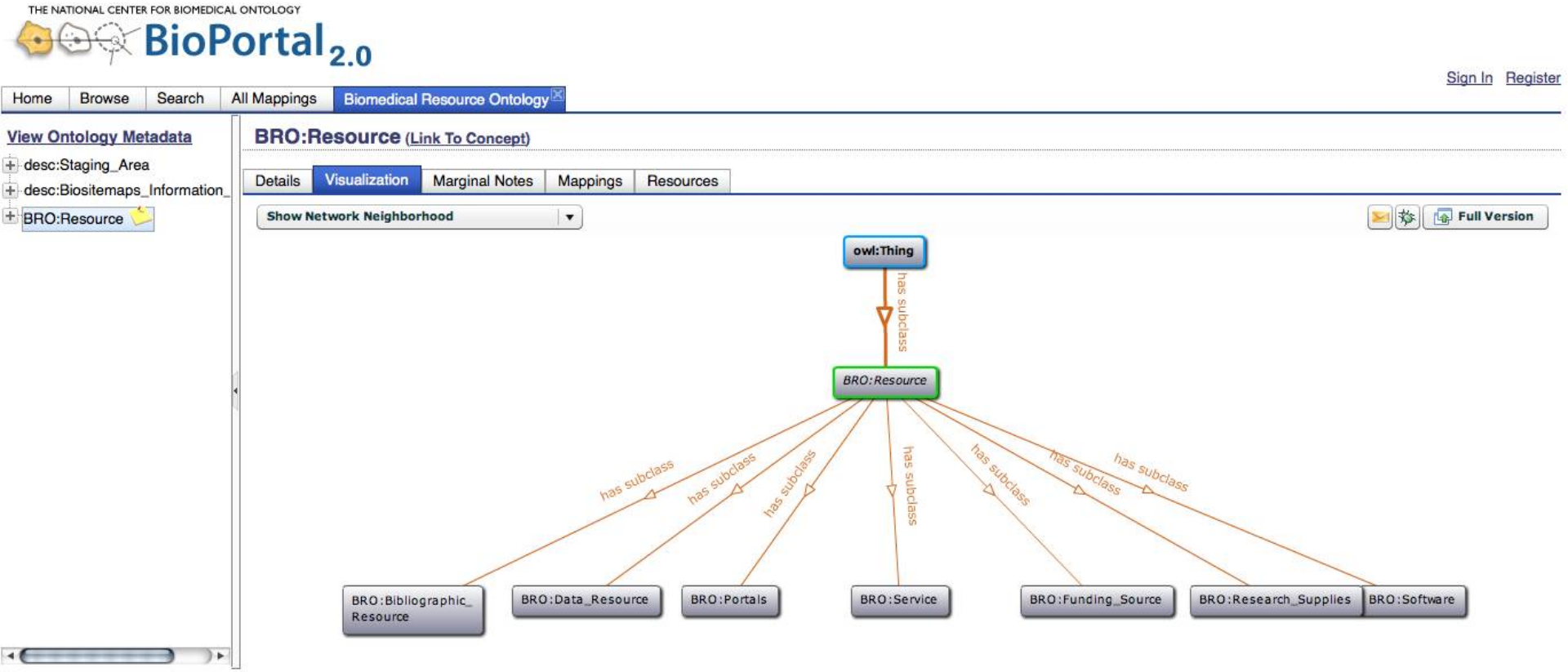
Mappings between ontologies

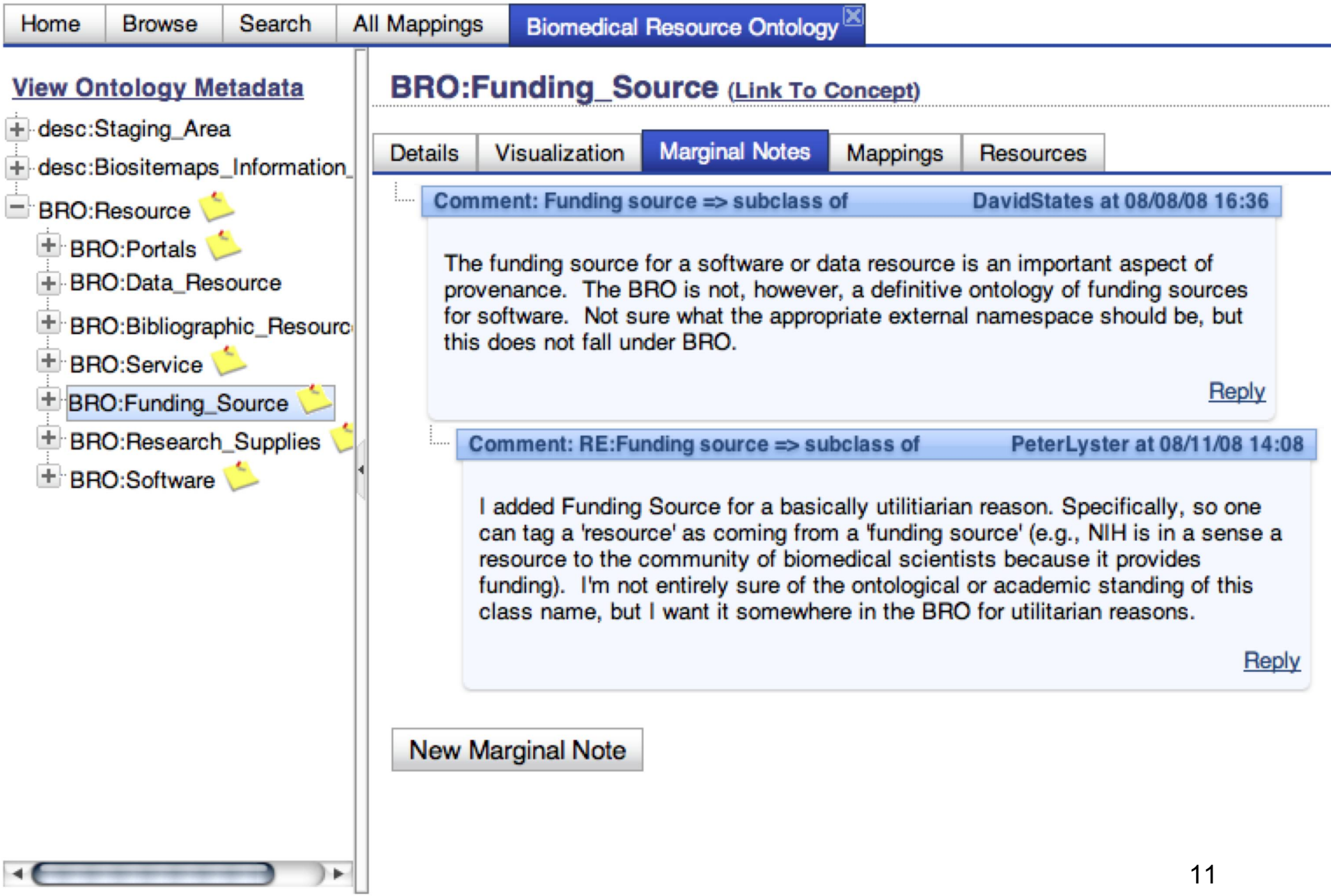


Creating a “point to point” mapping



Biomedical Resource Ontology in BioPortal




Home
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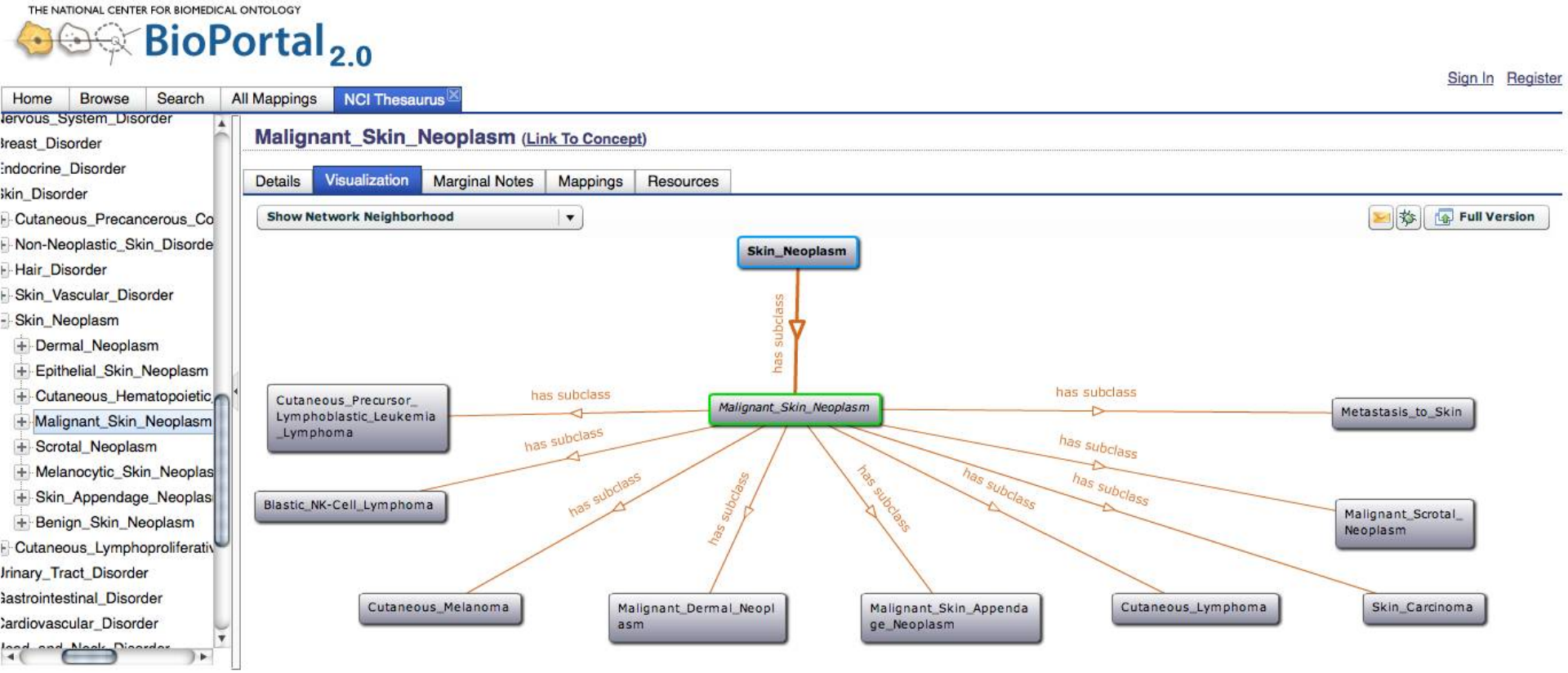
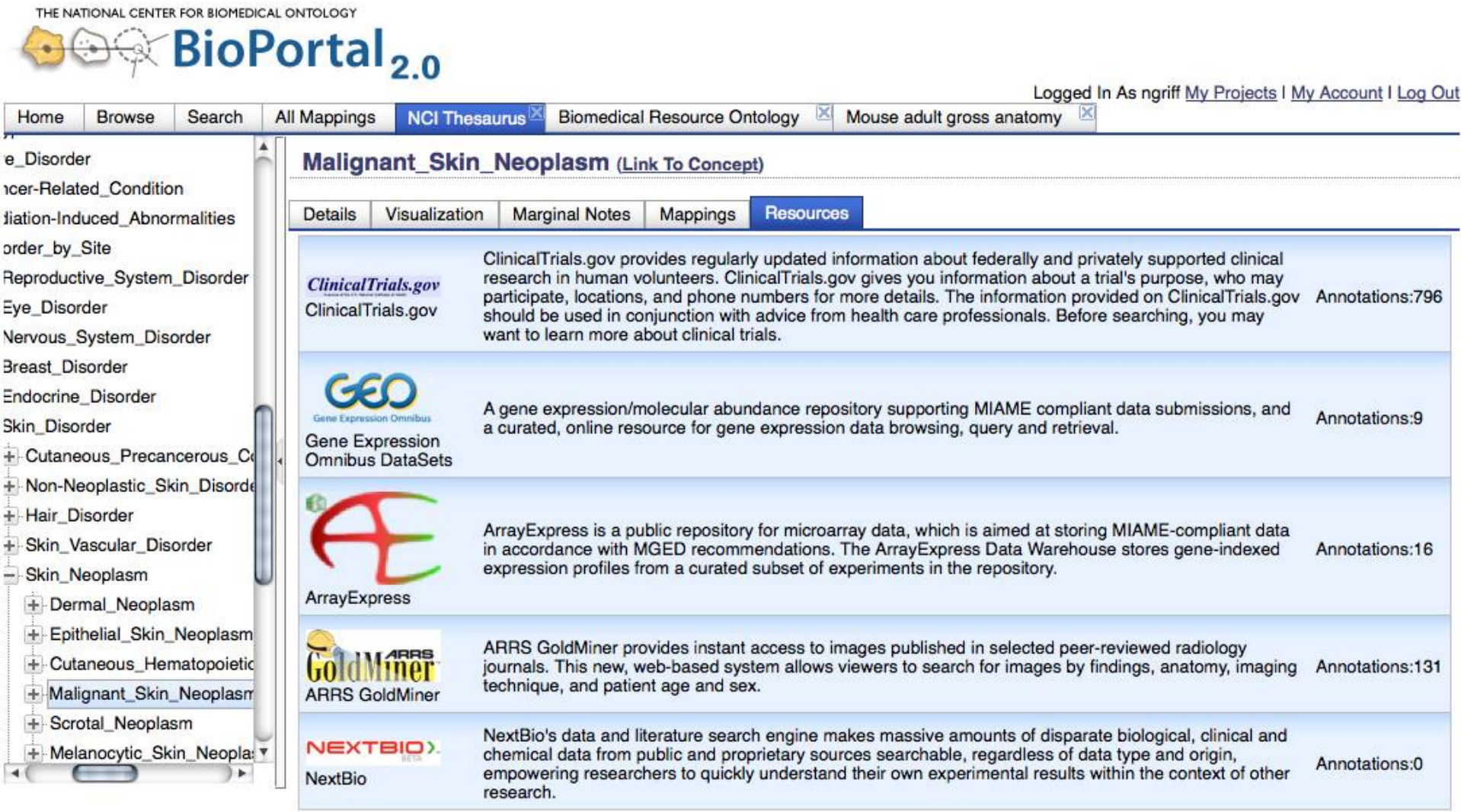
Biomedical Resource Ontology
View Ontology Metadata
desc:Staging_Area
desc:Biositemaps_Information_
BRO:Resource
BRO:Portals
BRO:Data_Resource
BRO:Bibliographic_Resourc
BRO:Service
BRO:Funding_Source
BRO:Research_Supplies
BRO:Software
BRO:Funding_Source (Link To Concept)
Details
Visualization
Marginal Notes
Mappings
Resources
Comment: Funding source => subclass of
DavidStates at 08/08/08 16:36
The funding source for a software or data resource is an important aspect of provenance. The BRO is not, however, a definitive ontology of funding sources for software. Not sure what the appropriate external namespace should be, but this does not fall under BRO.
Reply
Comment: RE:Funding source => subclass of
PeterLyster at 08/11/08 14:08
I added Funding Source for a basically utilitiarian reason. Specifically, so one can tag a 'resource' as coming from a 'funding source' (e.g., NIH is in a sense a resource to the community of biomedical scientists because it provides funding). I'm not entirely sure of the ontological or academic standing of this class name, but I want it somewhere in the BRO for utilitarian reasons.
Reply
New Marginal Note

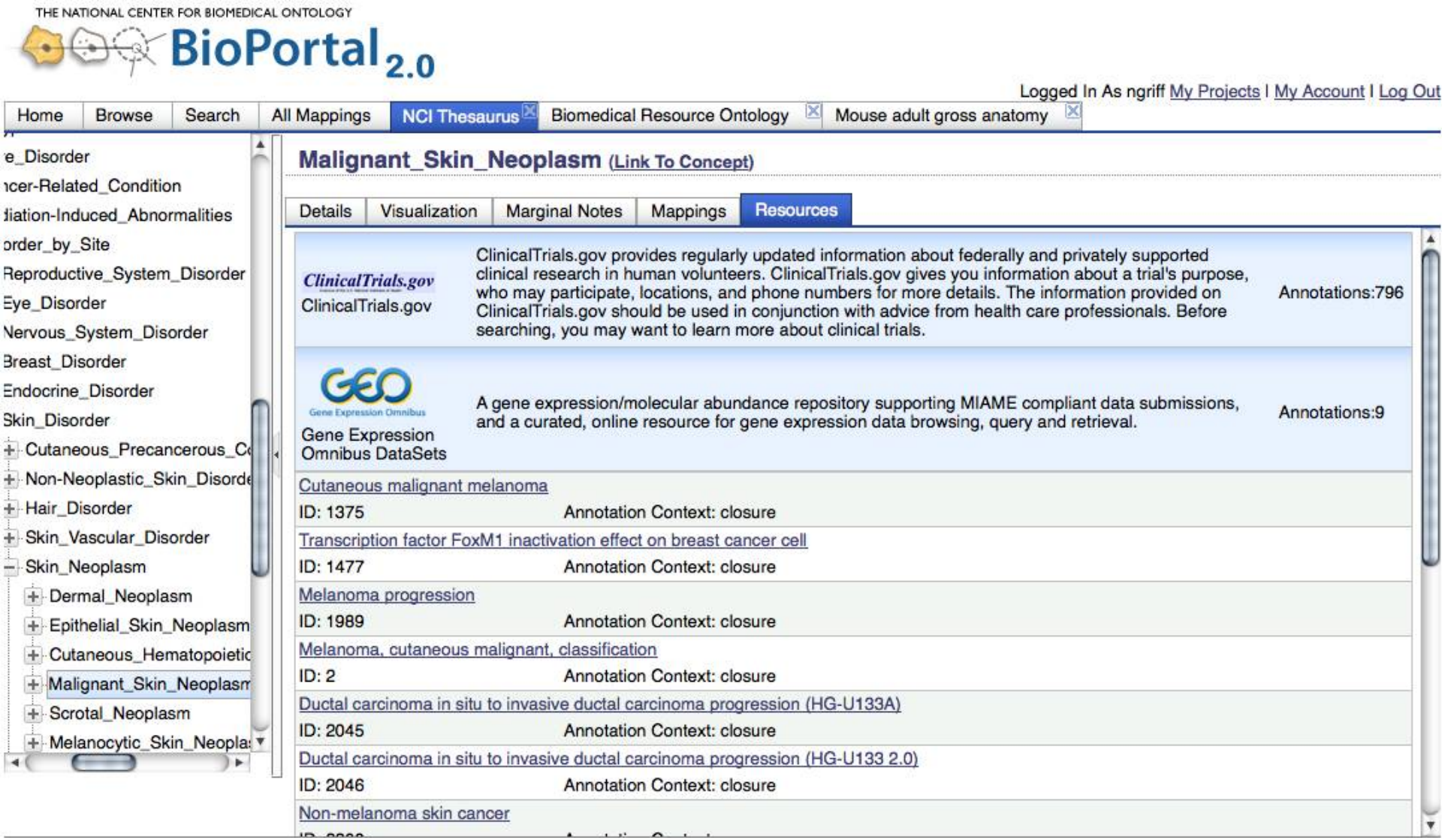
NCI Thesaurus in BioPortal



Open Biomedical Resources

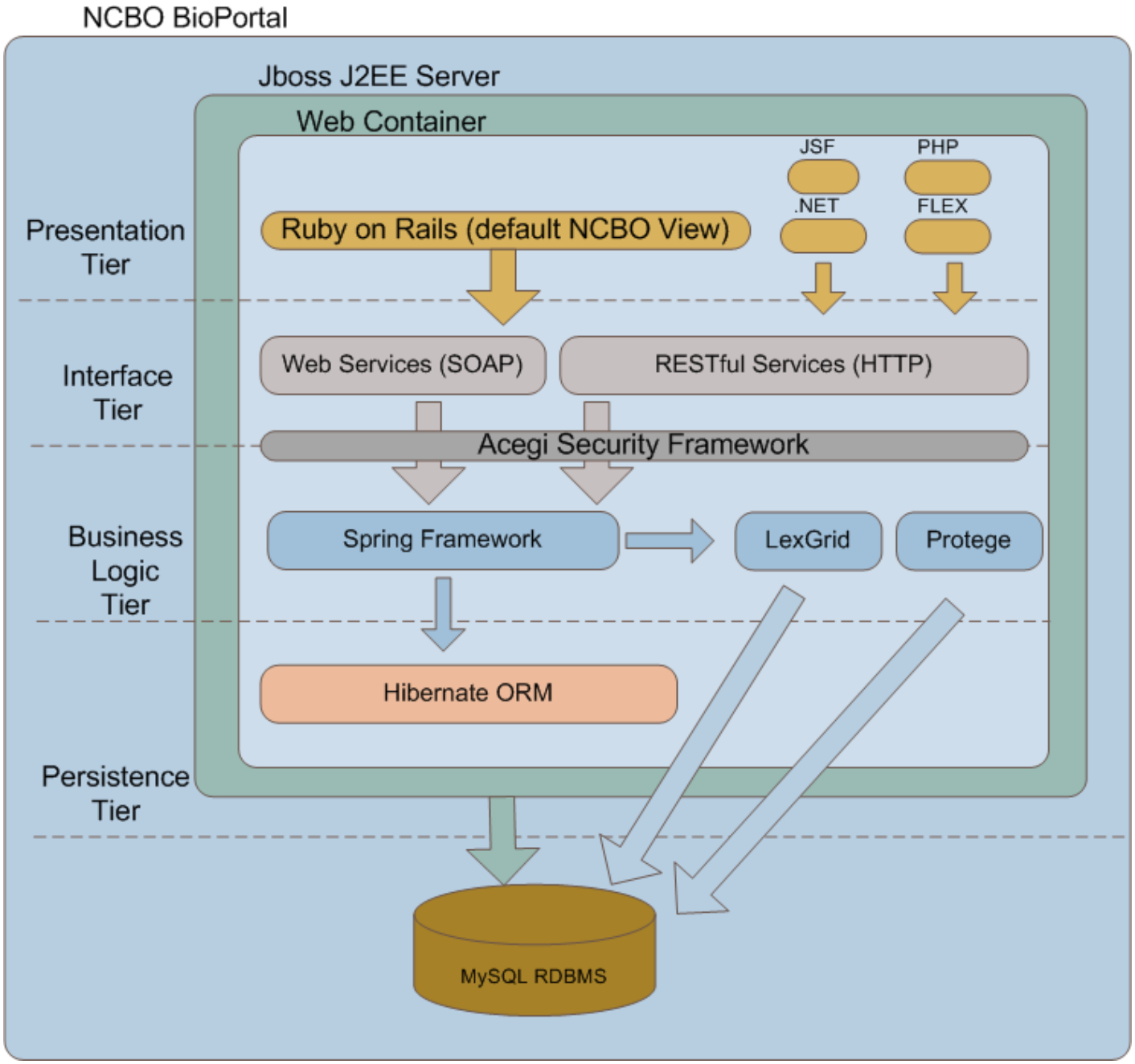


Open Biomedical Resources



What's in BioPortal today?

Statistics
Total Number of Ontologies: 111
NCBO Library: 78
Remote Ontologies: 33
Number of Classes/Types: 500109*
*from ontologies that have been parsed and indexed


NCBO BioPortal
Jboss J2EE Server
Web Container
JSF
PHP
.NET
FLEX
Presentation Tier
Ruby on Rails (default NCBO View)
Interface Tier
Web Services (SOAP)
RESTful Services (HTTP)
Acegi Security Framework
Business Logic Tier
Spring Framework
LexGrid
Protege
Hibernate ORM
Persistence Tier
MySQL RDBMS

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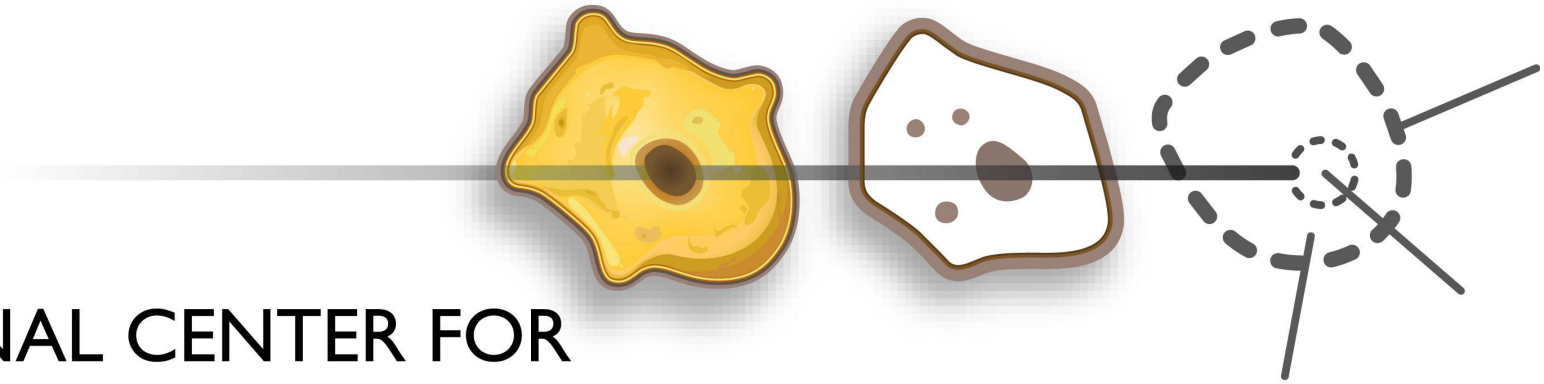

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