The GenTaR Web Application Sandbox

https://www.gentar.org/production-tracker-sandbox/#/

A stable prototype for you to test

- Data replaced every Saturday
- **NOT** the final version
- feedback really welcome

Sandbox data

Some public data from iMits has been loaded into the database.

For demonstration purposes a few changes have been made to the data:

Projects with genes starting with an 'A' have been made restricted
Projects with genes starting with a 'B' have been made protected

In iMits all the data is associated with CMG, but in the sandbox the project associated with the gene Atrx has been made an internal Baylor (BCM) project.

Difference in the data model compared to iMits:

- **Work Units / Work Group / Consortium**
    - GenTaR Work Units == iMits Centre (e.g. Harwell)
    - GenTaR Work Group == iMits Consortium (e.g. BASH)
    - GenTaR Consortium - collaborating projects - (e.g. CMG, Kids First)

- **Projects & plans**
    - GenTaR project == iMits plan
    - GenTaR plan (production) == iMits mi_attempt

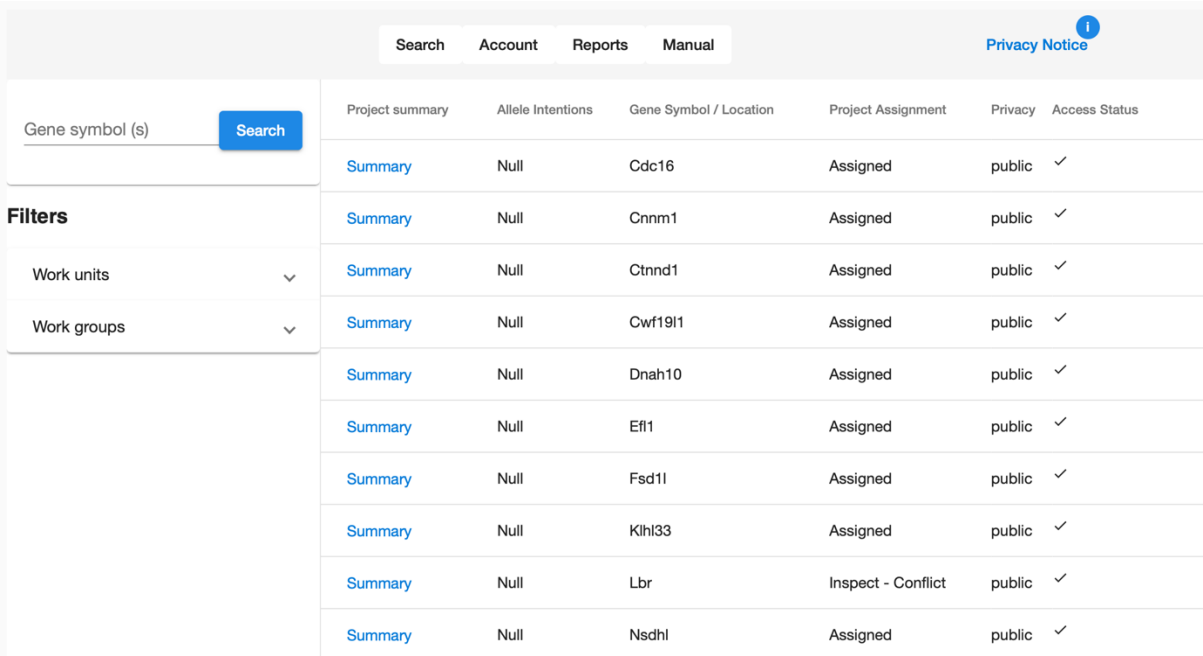
- A GenTaR production plan can have multiple Outcomes
- Outcomes are linked to a colony or a specimen (haplo-essential project)
- Projects, Plans and Outcomes have identifiers

Working with the application

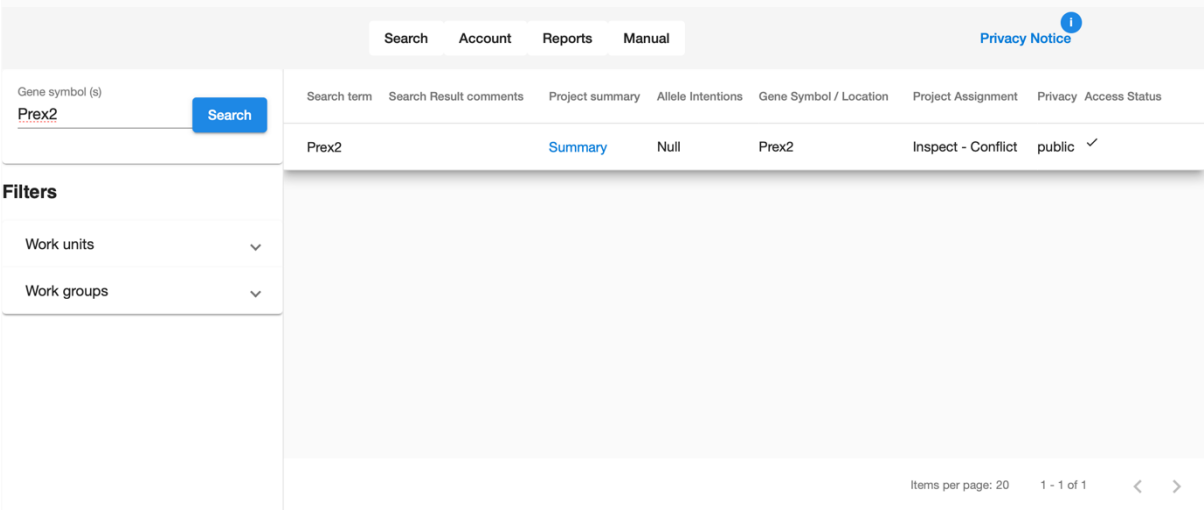
Public data

If you are not logged into the system you can view and search public data

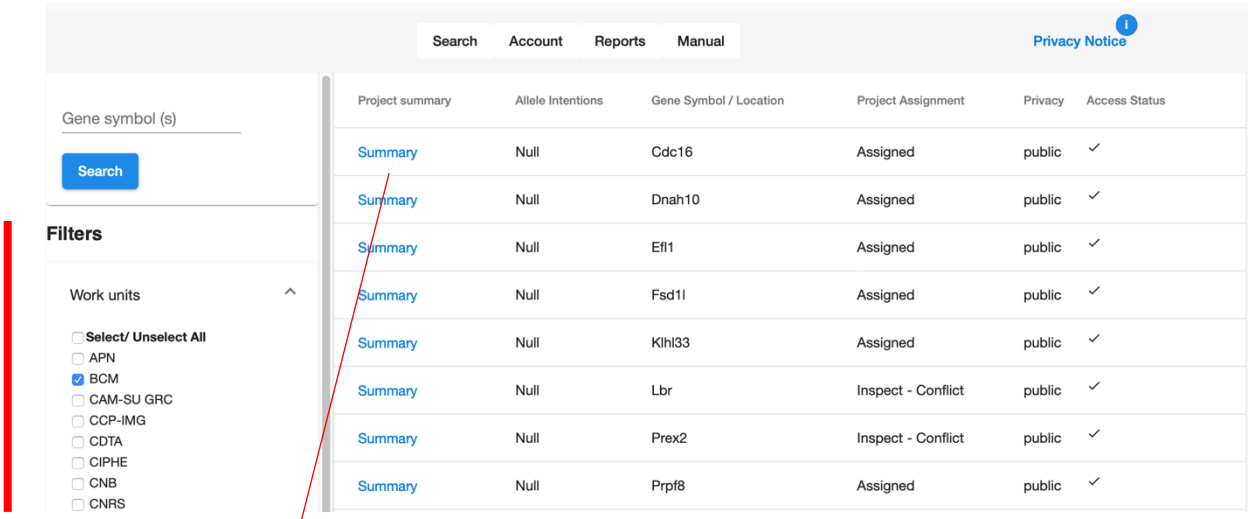
This is the project view showing all public projects. This opens by default, but you can also open this view from the “Search Projects” item of the “Search“ menu.



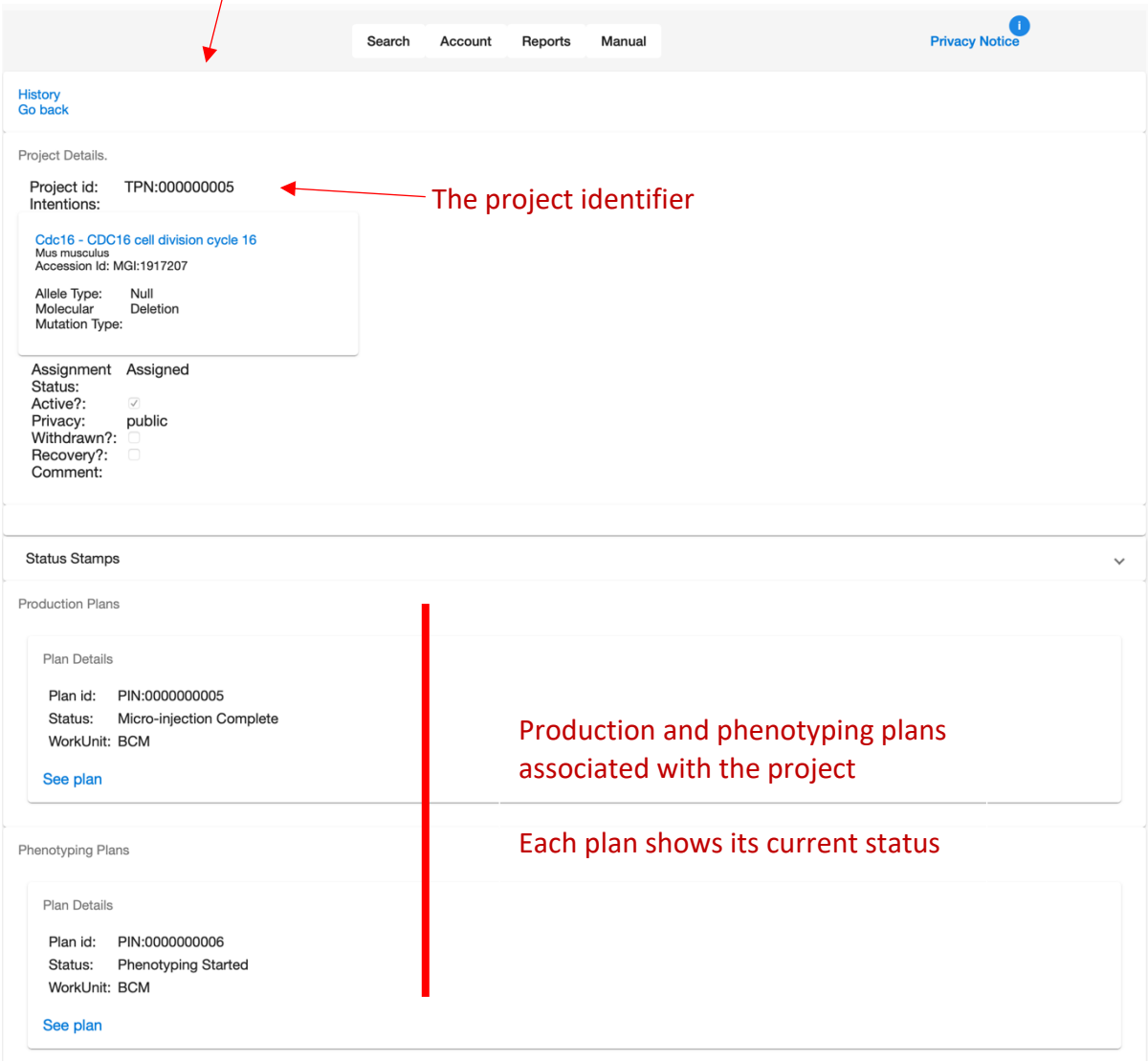
Specific projects can be found by gene symbol or synonym



Alternatively, the projects can be filtered by Work Unit (a production centre such as TCP), or by a Work Group (e.g. BASH)



Clicking on the Summary link of a project gives you an overview of that project



Clicking the “See plan” link shows detailed information about the plan.

Production plan

A production plan has information about the strategy used to produce the mouse line

Search Account Reports Manual

Privacy Notice

Project TPN:000000005/ Plan PIN:0000000005

History
Go back

Plan Details

Id:	PIN:0000000005
Type:	production
Status:	Micro-injection Complete
Work Unit:	BCM
Funder:	KOMP2
Products available for general public?:	
Comment:	

Project id:

Crispr Attempt Details

Attempt Type:	
MI date:	Jan 23, 2018
MI external Ref:	Cdc16 Cas9ZyElectroA
Experimental:	
Comments:	LIMS Colony Prefix: CDZE B6/N Electroporation (30V, 12 pulses, 1 msec, 100 msec interval) Cas9 protein 480ng/ul 2 sgRNA pools 53.25ng/ul each in a total volume of 20ul Modified TE+OptiMem

Mutagenesis Details

Mutagenesis External Ref:	MF-23667
Delivery Method:	Electroporation
Voltage:	30
Number of pulses:	12

Guides

Sequence	Chr	Chr Start	Chr Stop	Truncated Guide	gRNA Concentration
CCTGGTGAAGCTAAGGCTTCGTT		13762678	Not defined		53.25
TATTGATTTATACTGTGCCTTGG		13762716	Not defined		
TTAAGGGCAAGGTACACAATAGG		13763130	Not defined		
CCTAATGTCTTCAGGTAGTAAGC		13763172	Not defined		

Genotype Primers

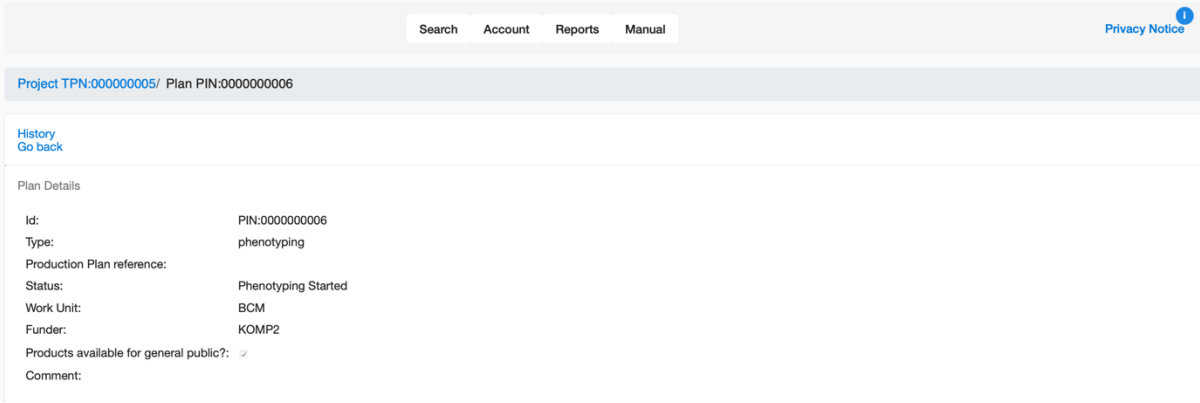
Name	Sequence	Start Coordinate	End Coordinate
Cdc16 KO F	AGTGTCCAGGAAAGACAGGC	Not defined	Not defined
Cdc16 KO R	GCTCTGAGATTGGGACTTGGA	Not defined	Not defined
Cdc16 Endo R	CAAACCTTCCTGTGCTGTCAG	Not defined	Not defined
Cdc16 Endo F	AGTGTCCAGGAAAGACAGGC	Not defined	Not defined

Vector/Ologos (Mutagenesis Donors)

Concentration	Sequence	Preparation

Phenotype plan

A phenotype plan has details about who is phenotyping the mouse



To edit the information, you need to log into the system

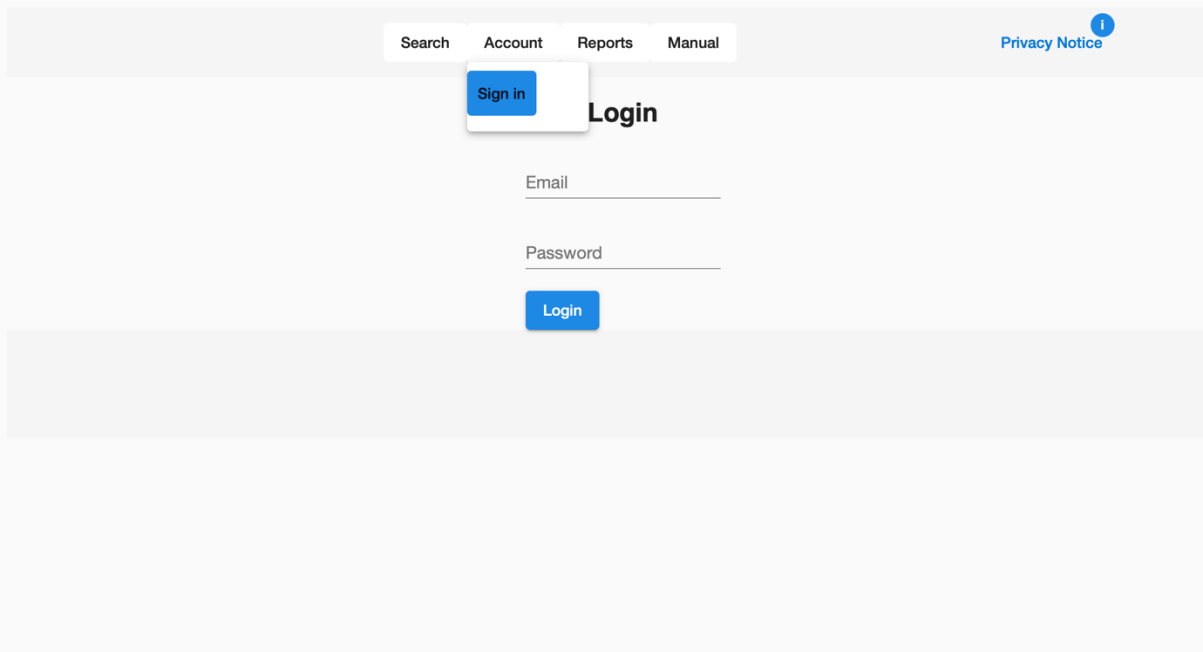
GenTaR Sandbox Users

We have created a number of users in the sandbox so that you can explore the system from different perspectives.

Name	E-mail	Password	Workunit	Work unit Role	Consortium	Consortium Role	Description
CMG Manager	cmg-manager@ebi.ac.uk	cmg-manager			CMG	Manager	CMG only user (manager)
CMG	cmg@ebi.ac.uk	cmg			CMG	General	CMG only user (general)
BCM Manager	bcm-manager@ebi.ac.uk	bcm-manager	BCM	Manager			BCM Manager
BCM	bcm@ebi.ac.uk	bcm	BCM	General			BCM General
TCP	tcp@ebi.ac.uk	tcp	TCP	General			TCP General

Logging into the Web Application

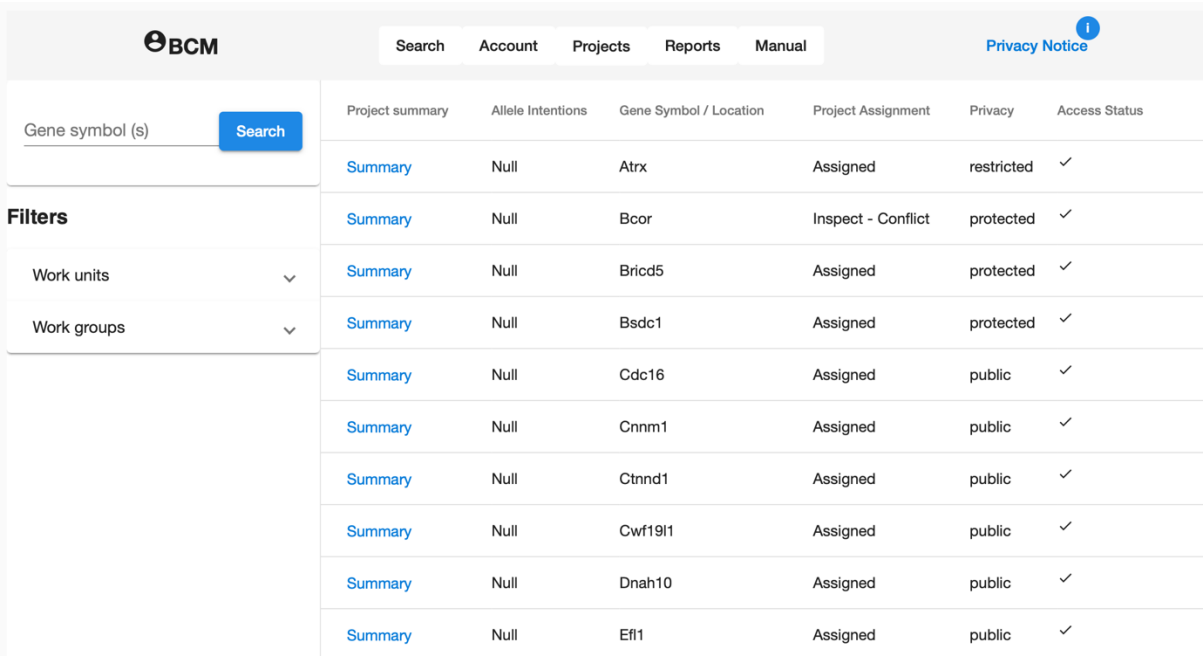
You can find the “Sign In” option under the Account tab



Data Access – Protected and Restricted Projects

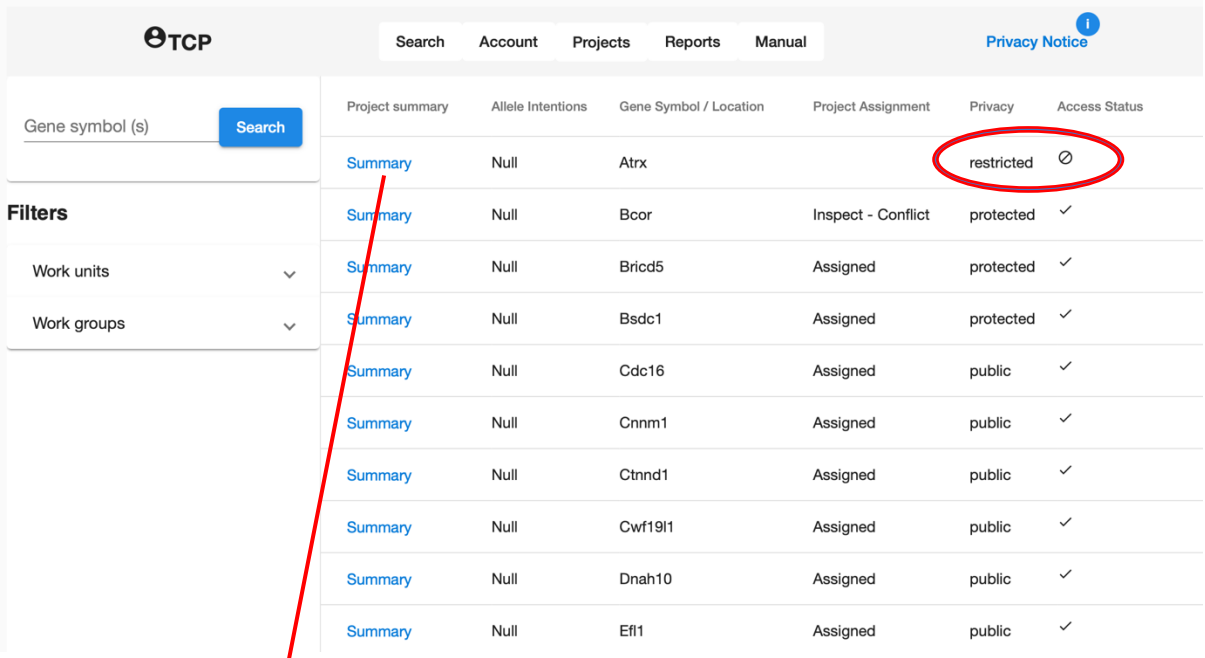
Signing in as the Baylor (BCM) general user:

Shows all the public, protected and restricted projects and their access status for the Baylor user. Baylor has an association with the CMG consortium, so all CMG projects are visible to the Baylor user.

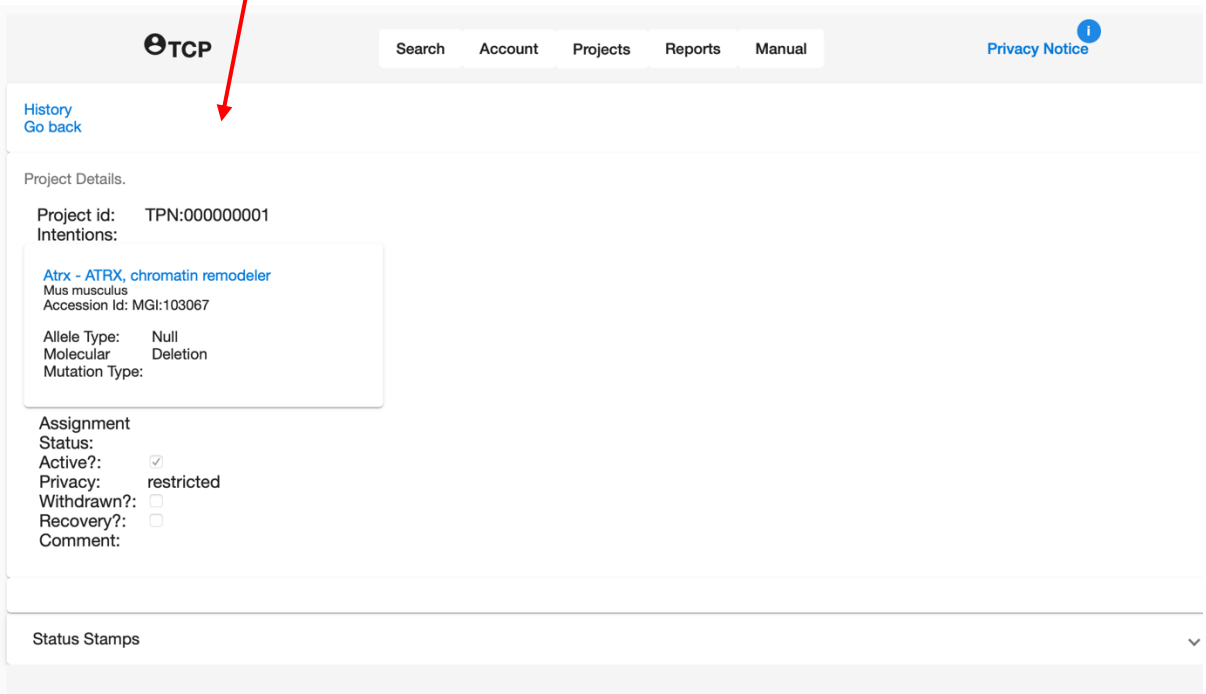


Signing in as the TCP general user:

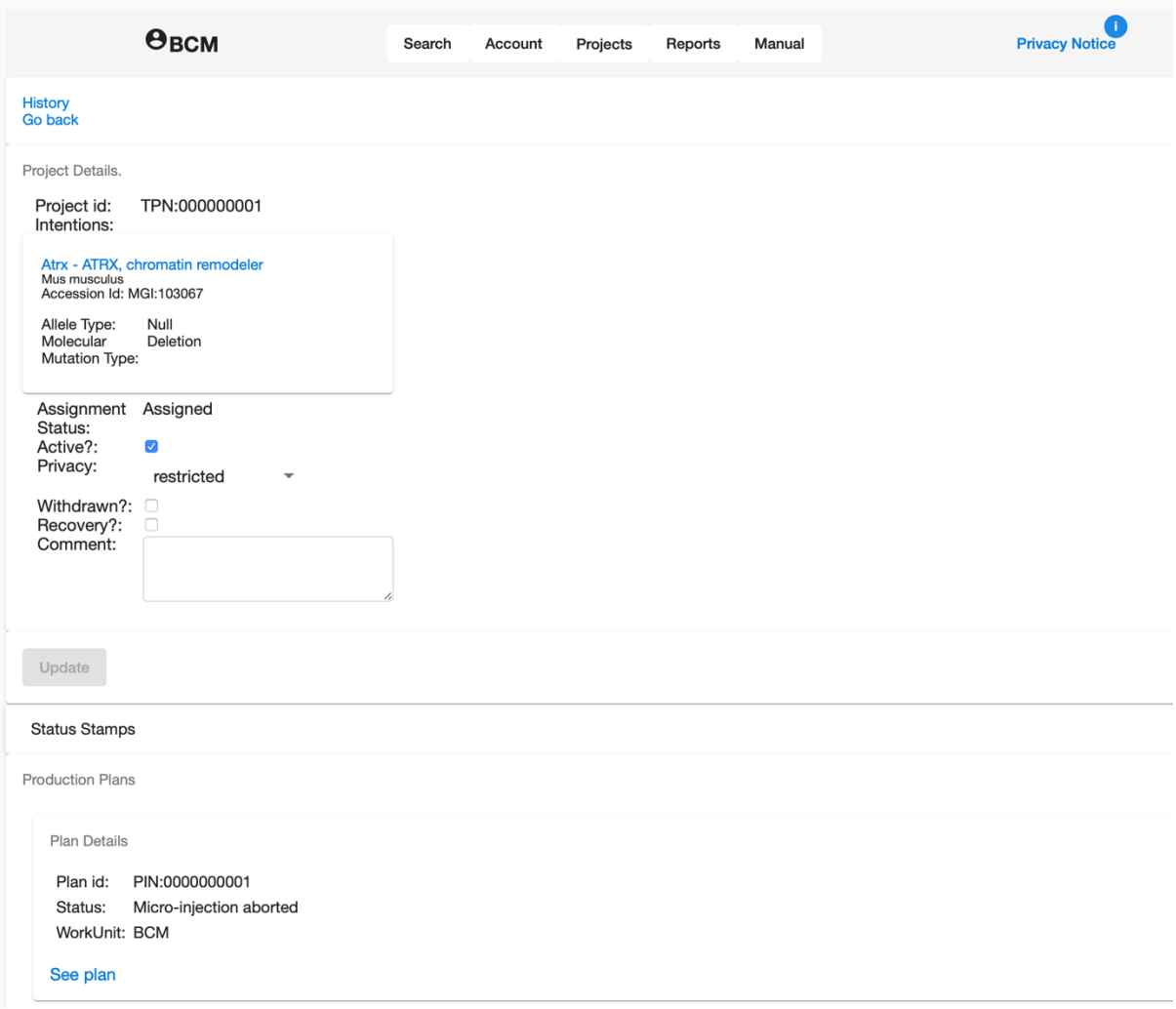
TCP has an association with the CMG consortium, so all CMG projects are visible, however the restricted project specific to Baylor is flagged with a different access status.



Clicking on the project summary link as a TCP user just shows high level information about the project, the plans associated with the project are not shown.



In contrast the BCM user has access to details of the plans to produce and phenotype the mice.

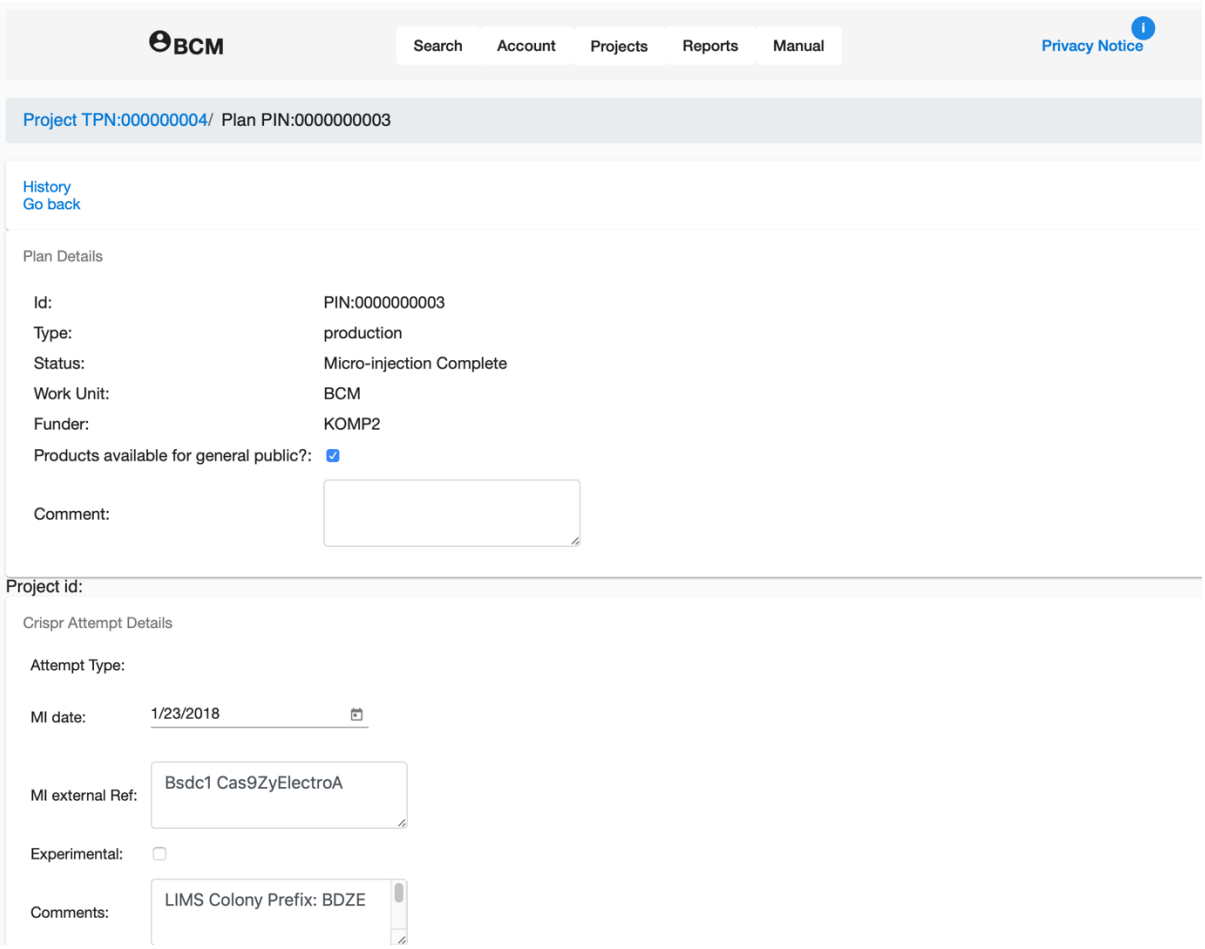


Editing a Record

A user logged into the system from a Work Unit that is directly associated with a project or a plan has a different view of the data that allows them to update it.

Compare the view of a protected project between the BCM and TCP users

BCM user:



The data can be edited in this view.

The view for the TCP user of the same plan:

TCP | Search | Account | Projects | Reports | Manual | Privacy Notice

Project TPN:000000004/ Plan PIN:0000000003

History
Go back

Plan Details

Id:	PIN:0000000003
Type:	production
Status:	Micro-injection Complete
Work Unit:	BCM
Funder:	KOMP2
Products available for general public?:	☑
Comment:	

Project id:

Crispr Attempt Details

Attempt Type:	
MI date:	Jan 23, 2018
MI external Ref:	Bsdc1 Cas9ZyElectroA
Experimental:	☐
Comments:	LIMS Colony Prefix: BDZE B6/N Electroporation (30V, 12 pulses, 1 msec, 100 msec interval) Cas9 protein 480ng/ul 2 sgRNA pools 53.25ng/ul each in a tota of 20ul Modified TE+OptiMem

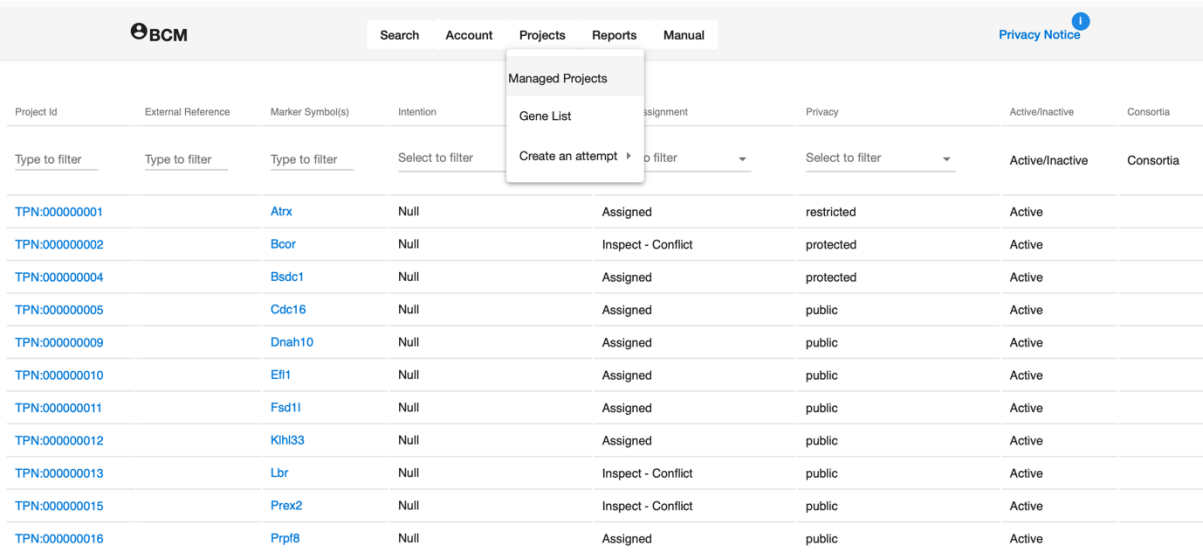
Mutagenesis Details

Mutagenesis External Ref:	MF-23666
Delivery Method:	Electroporation

The TCP user can see the details but is not able to edit the data.

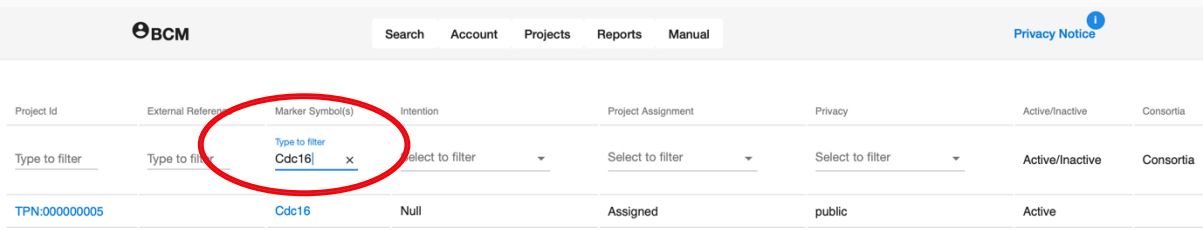
Managed Projects

A list of all projects that you manage can be obtained under the Projects menu when logged into the system as a member of a work unit.

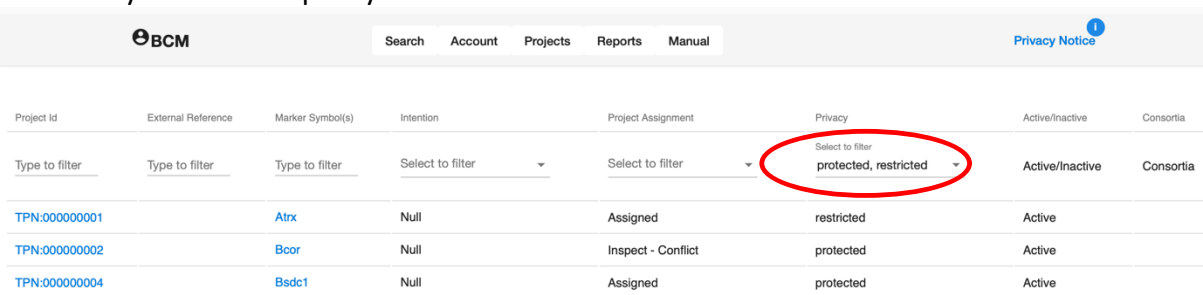


Filters present at the top of the list can be used to locate specific projects

Filtered by Marker symbol



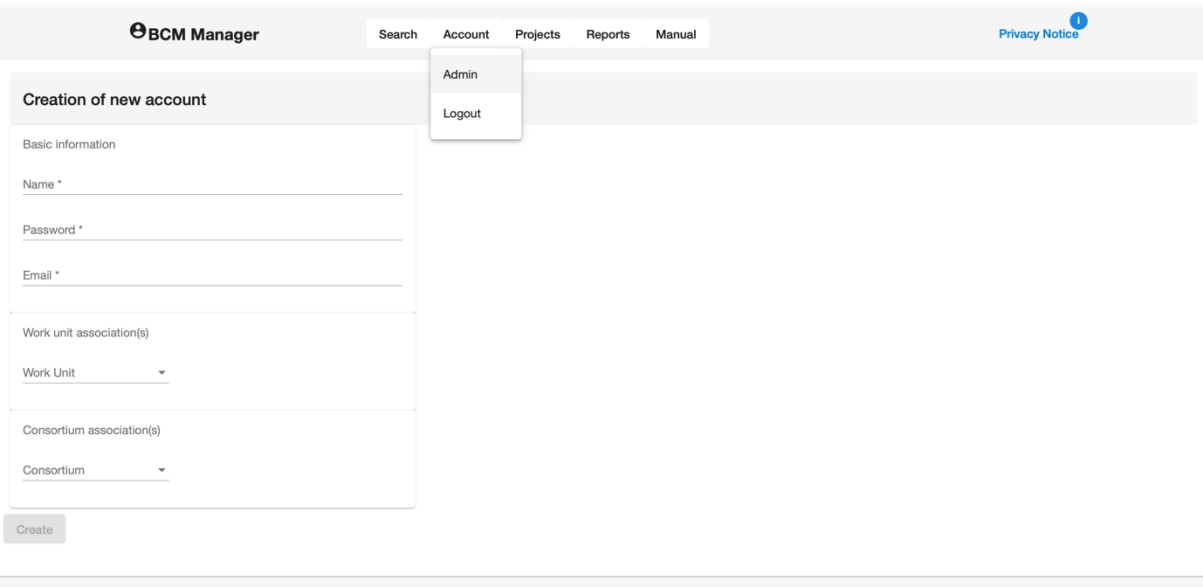
Filtered by data access policy



Creating new users

Users who have the Manager role can create users associated with their Work Unit or Consortium.

This function is available from the “Admin” item of the “Account” menu, which only appears for a manager logged into the system.

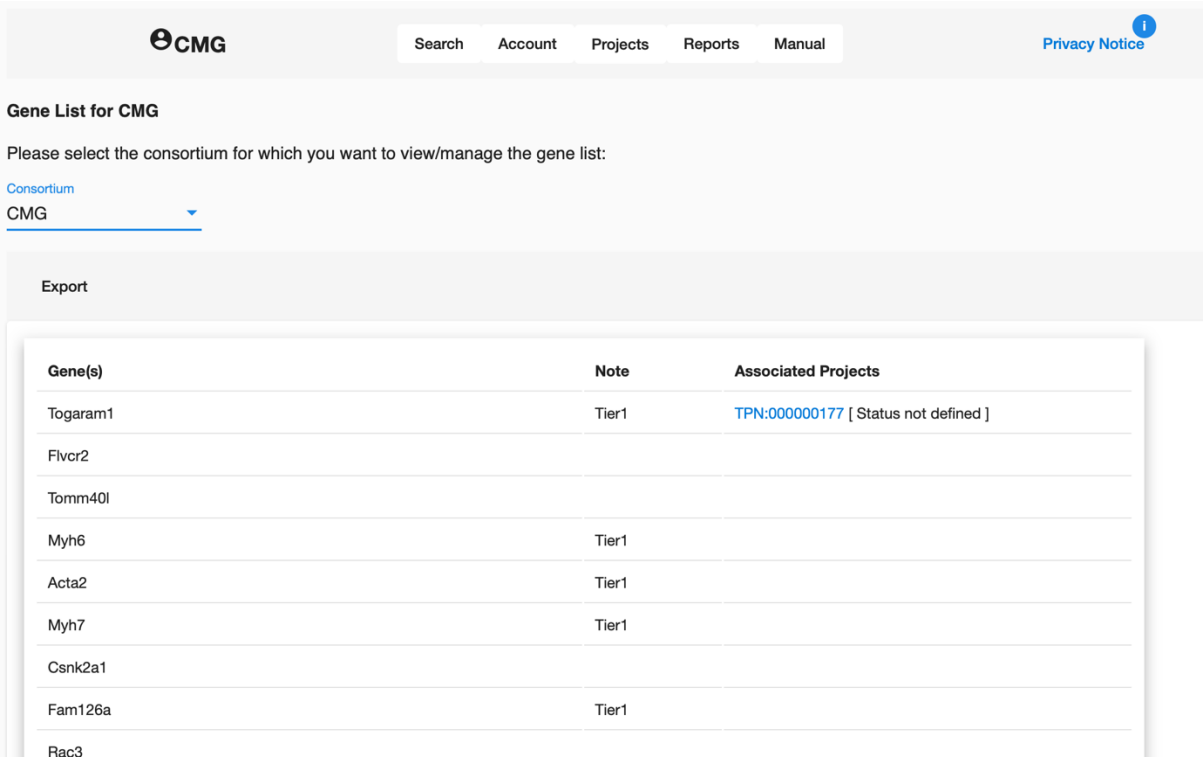


The ability to delete users or reset the password will be added in the future.

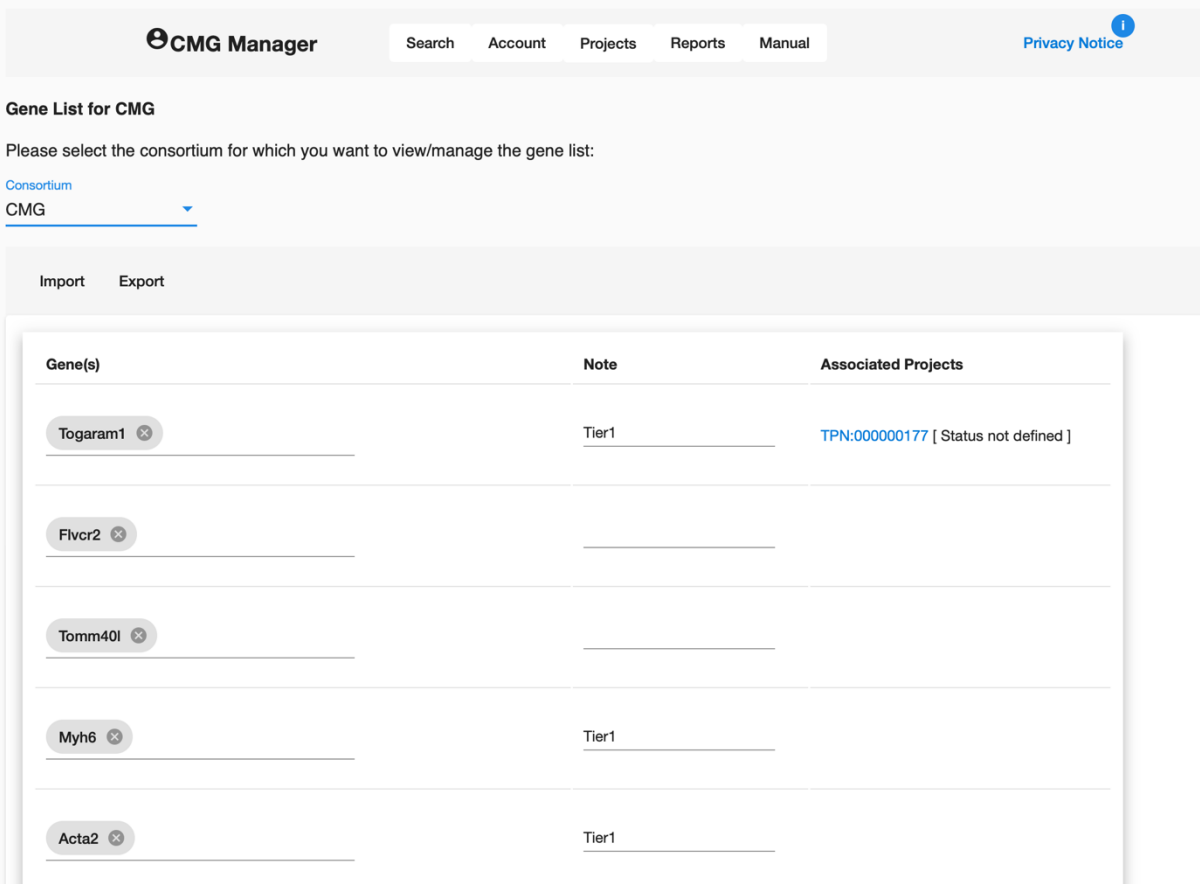
Managed Gene Lists

A member of a consortium has access to the consortium gene list. There are separate lists for each consortium. The list can be used to record all genes of interest to the consortium, not just those entered into the production tracking system.

For genes on the list in the production pipeline
Every project associated with the gene is shown

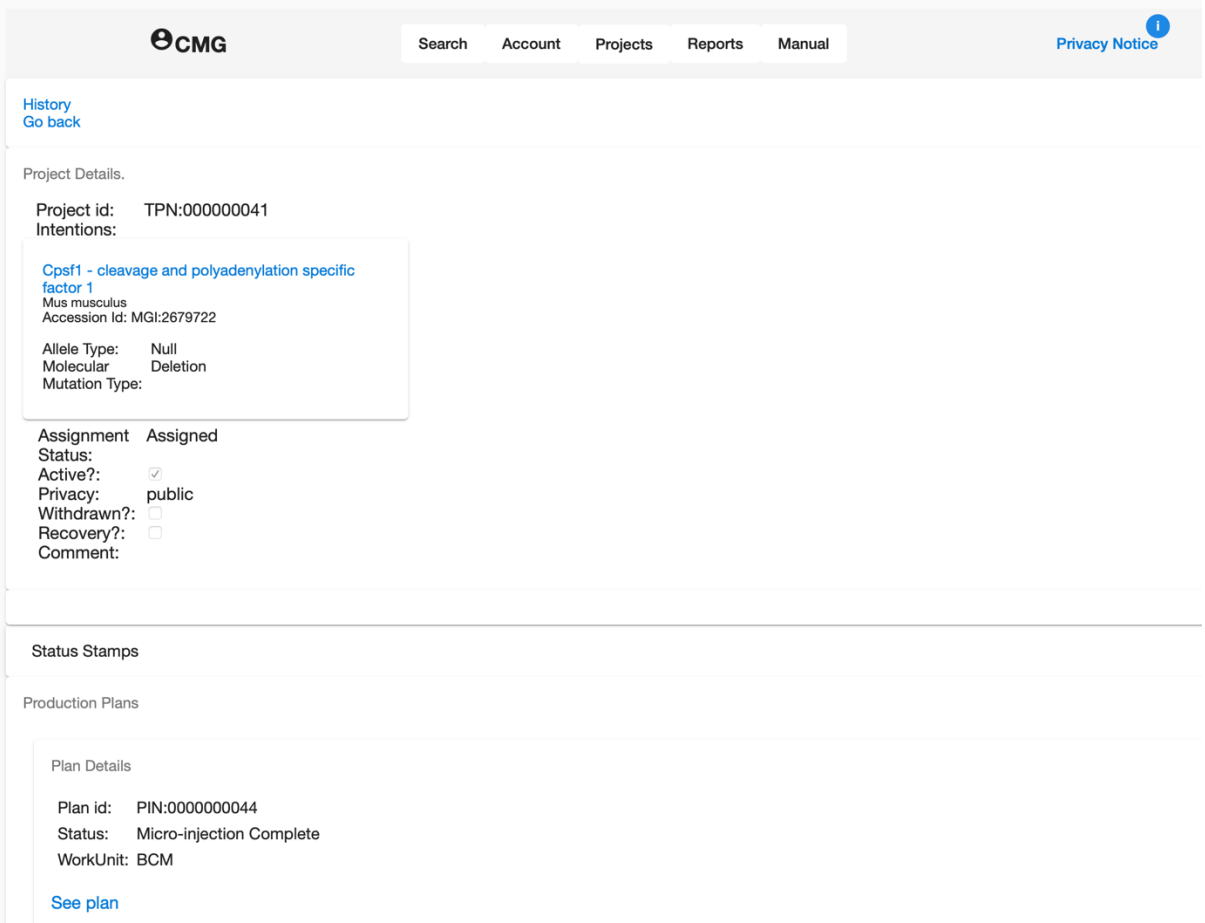


The gene lists can be maintained by members of the consortium who have been assigned the Manager role. When they open the gene list page, they have a different view that allows them to edit the list or import additional genes from a CSV file.



The format of a CSV file is:
< gene symbol >, <note>

However, this is something that could change in a future version of the application.

Members of a work unit who are not a member of the consortium cannot view the gene list.

Members of the consortium can see all the information about public plans, as well as protected and restricted plans that are associated with the consortium, however they do not have permission to edit the plans or projects.