

# 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.

Search

Account

Reports

Manual

Privacy Notice

Gene symbol (s)	Search	Project summary	Allele Intentions	Gene Symbol / Location	Project Assignment	Privacy	Access Status
		Summary	Null	Cdc16	Assigned	public	✓
		Summary	Null	Cnm1	Assigned	public	✓
Filters		Summary	Null	Ctnnd1	Assigned	public	✓
Work units	▼	Summary	Null	Cwf19l1	Assigned	public	✓
Work groups	▼	Summary	Null	Dnah10	Assigned	public	✓
		Summary	Null	Ef11	Assigned	public	✓
		Summary	Null	Fsd1l	Assigned	public	✓
		Summary	Null	Klhl33	Assigned	public	✓
		Summary	Null	Lbr	Inspect - Conflict	public	✓
		Summary	Null	Nsdhl	Assigned	public	✓

Specific projects can be found by gene symbol or synonym

Search

Account

Reports

Manual

Privacy Notice

Gene symbol (s)	Search	Search term	Search Result comments	Project summary	Allele Intentions	Gene Symbol / Location	Project Assignment	Privacy	Access Status
Prex2	Search	Prex2		Summary	Null	Prex2	Inspect - Conflict	public	✓

Filters

Work units

Work groups

Items per page: 201 - 1 of 1

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

Search Account Reports Manual Privacy Notice						
Gene symbol (s)  Search	Project summary	Allele Intentions	Gene Symbol / Location	Project Assignment	Privacy	Access Status
<b>Filters</b>  Work units  <input type="checkbox"/> Select/ Unselect All <input type="checkbox"/> APN <input checked="" type="checkbox"/> BCM <input type="checkbox"/> CAM-SU GRC <input type="checkbox"/> CCP-IMG <input type="checkbox"/> CDTA <input type="checkbox"/> CIPHE <input type="checkbox"/> CNB <input type="checkbox"/> CNRS	<a href="#">Summary</a>	Null	Cdc16	Assigned	public	✓
	<a href="#">Summary</a>	Null	Dnah10	Assigned	public	✓
	<a href="#">Summary</a>	Null	Efl1	Assigned	public	✓
	<a href="#">Summary</a>	Null	Fsd11	Assigned	public	✓
	<a href="#">Summary</a>	Null	Kihl33	Assigned	public	✓
	<a href="#">Summary</a>	Null	Lbr	Inspect - Conflict	public	✓
	<a href="#">Summary</a>	Null	Prex2	Inspect - Conflict	public	✓
	<a href="#">Summary</a>	Null	Prpf8	Assigned	public	✓

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

Search Account Reports Manual Privacy Notice

History  
Go back

Project Details.  
Project id: TPN:000000005  
Intentions:  
Cdc16 - CDC16 cell division cycle 16  
Mus musculus  
Accession Id: MGI:1917207  
Allele Type: Null  
Molecular: Deletion  
Mutation Type:  
Assignment: Assigned  
Status:  
Active?: ☒  
Privacy: public  
Withdrawn?: ☐  
Recovery?: ☐  
Comment:

Status Stamps

Production Plans  
Plan Details  
Plan id: PIN:0000000005  
Status: Micro-injection Complete  
WorkUnit: BCM  
See plan

Phenotyping Plans  
Plan Details  
Plan id: PIN:0000000006  
Status: Phenotyping Started  
WorkUnit: BCM  
See plan

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

SearchAccountReportsManual

Privacy Notice

Project TPN:000000005/ Plan PIN:000000005

HistoryGo back

Plan Details

Id:

PIN:000000005

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
TATTGATTATACCTGTGCCTTGG		13762716	Not defined		
TTAAGGGCAAGGTACACAATAGG		13763130	Not defined		
CCTAATGTCTTCAGGTAGTAAGC		13763172	Not defined		

Genotype Primers

Name	Sequence	Start Coordinate	End Coordinate
Cdc16 KO F	AGTGTCAGGAAAGACAGGC	Not defined	Not defined
Cdc16 KO R	GCTCTGAGATTGGGACTTGGA	Not defined	Not defined
Cdc16 Endo R	CAACCTTCCTGTGCTGTCAAG	Not defined	Not defined
Cdc16 Endo F	AGTGTCAGGAAAGACAGGC	Not defined	Not defined

Vector/Ologos (Mutagenesis Donors)

Concentration	Sequence	Preparation
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# Phenotype plan

A phenotype plan has details about who is phenotyping the mouse

[Search](#) [Account](#) [Reports](#) [Manual](#) [Privacy Notice](#)

Project TPN:000000005/ Plan PIN:000000006

[History](#)  
[Go back](#)

Plan Details

Id: PIN:000000006  
Type: phenotyping  
Production Plan reference:  
Status: Phenotyping Started  
Work Unit: BCM  
Funder: KOMP2  
Products available for general public?: ☒  
Comment:

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
<b>CMG Manager</b>	cmg-manager@ebi.ac.uk	cmg-manager			CMG	Manager	CMG only user (manager)
<b>CMG</b>	cmg@ebi.ac.uk	cmg			CMG	General	CMG only user (general)
<b>BCM Manager</b>	bcm-manager@ebi.ac.uk	bcm-manager	BCM	Manager			BCM Manager
<b>BCM</b>	bcm@ebi.ac.uk	bcm	BCM	General			BCM General
<b>TCP</b>	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

SearchAccountReportsManual

Privacy Notice

Sign in

Login

Email

Password

Login

## 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.

BCM

Search

Account

Projects

Reports

Manual

Privacy Notice

Gene symbol (s)

Search

Filters

Work units

Work groups

Project summary	Allele Intentions	Gene Symbol / Location	Project Assignment	Privacy	Access Status
<a href="#">Summary</a>	Null	Atrx	Assigned	restricted	✓
<a href="#">Summary</a>	Null	Bcor	Inspect - Conflict	protected	✓
<a href="#">Summary</a>	Null	Bricd5	Assigned	protected	✓
<a href="#">Summary</a>	Null	Bsdc1	Assigned	protected	✓
<a href="#">Summary</a>	Null	Cdc16	Assigned	public	✓
<a href="#">Summary</a>	Null	Cnm1	Assigned	public	✓
<a href="#">Summary</a>	Null	Ctnnd1	Assigned	public	✓
<a href="#">Summary</a>	Null	Cwf19l1	Assigned	public	✓
<a href="#">Summary</a>	Null	Dnah10	Assigned	public	✓
<a href="#">Summary</a>	Null	Efl1	Assigned	public	✓



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

BCM

SearchAccountProjectsReportsManual

Privacy Notice

HistoryGo back

Project Details.

Project id:TPN:000000001

Intentions:

Atrx - ATRX, chromatin remodeler

Mus musculus

Accession Id: MGI:103067

Allele Type:Null

MolecularDeletion

Mutation Type:

AssignmentAssigned

Status:

Active?:☒

Privacy:restricted

Withdrawn?:☐

Recovery?:☐

Comment:

Update

Status Stamps

Production Plans

Plan Details

Plan id:PIN:0000000001

Status:Micro-injection aborted

WorkUnit:BCM

See plan



## 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:

BCM

SearchAccountProjectsReportsManual

Privacy Notice

Project TPN:000000004/ Plan PIN:0000000003

HistoryGo 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:

1/23/2018

MI external Ref:

Bsdc1 Cas9ZyElectroA

Experimental:

☐

Comments:

LIMS Colony Prefix: BDZE

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:000000003

History

Go back

Plan Details

Id:

PIN:000000003

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 total 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.

<div><div>BCM</div><div><div>Search</div><div>Account</div><div>Projects</div><div>Reports</div><div>Manual</div></div><div><div>Privacy Notice</div></div></div>							
Project Id	External Reference	Marker Symbol(s)	Intention	Project Assignment	Privacy	Active/Inactive	Consortia
Type to filter	Type to filter	Type to filter	Select to filter	Select to filter	Select to filter	Active/Inactive	Consortia
TPN:000000001		Atrx	Null	Assigned	restricted	Active	
TPN:000000002		Bcor	Null	Inspect - Conflict	protected	Active	
TPN:000000004		Bsd1	Null	Assigned	protected	Active	
TPN:000000005		Cdc16	Null	Assigned	public	Active	
TPN:000000009		Dnah10	Null	Assigned	public	Active	
TPN:000000010		Etf1	Null	Assigned	public	Active	
TPN:000000011		Fsd11	Null	Assigned	public	Active	
TPN:000000012		Kih133	Null	Assigned	public	Active	
TPN:000000013		Lbr	Null	Inspect - Conflict	public	Active	
TPN:000000015		Prex2	Null	Inspect - Conflict	public	Active	
TPN:000000016		Prp18	Null	Assigned	public	Active	

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

Filtered by Marker symbol

<div><div>BCM</div><div><div>Search</div><div>Account</div><div>Projects</div><div>Reports</div><div>Manual</div></div><div><div>Privacy Notice</div></div></div>							
Project Id	External Reference	Marker Symbol(s)	Intention	Project Assignment	Privacy	Active/Inactive	Consortia
Type to filter	Type to filter	Type to filter	Select to filter	Select to filter	Select to filter	Active/Inactive	Consortia
TPN:000000005		Cdc16	Null	Assigned	public	Active	

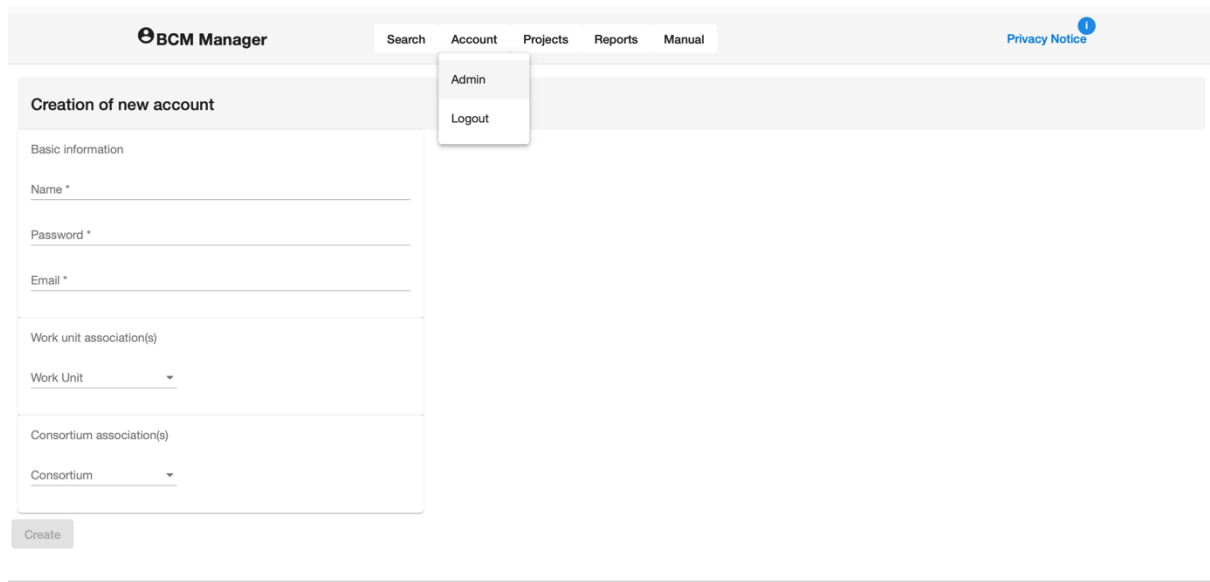
Filtered by data access policy

<div><div>BCM</div><div><div>Search</div><div>Account</div><div>Projects</div><div>Reports</div><div>Manual</div></div><div><div>Privacy Notice</div></div></div>							
Project Id	External Reference	Marker Symbol(s)	Intention	Project Assignment	Privacy	Active/Inactive	Consortia
Type to filter	Type to filter	Type to filter	Select to filter	Select to filter	Select to filter	Active/Inactive	Consortia
TPN:000000001		Atrx	Null	Assigned	restricted	Active	
TPN:000000002		Bcor	Null	Inspect - Conflict	protected	Active	
TPN:000000004		Bsd1	Null	Assigned	protected	Active	

## 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 screenshot shows the 'BCM Manager' interface. At the top, there is a navigation bar with the logo and a menu containing 'Search', 'Account', 'Projects', 'Reports', and 'Manual'. A 'Privacy Notice' link with an information icon is also present. The 'Account' menu is open, showing 'Admin' and 'Logout' options. The main content area is titled 'Creation of new account' and contains a form with the following sections:

- Basic information**
  - Name \*
  - Password \*
  - Email \*
- Work unit association(s)**
  - Work Unit (dropdown menu)
- Consortium association(s)**
  - Consortium (dropdown menu)

A 'Create' button is located at the bottom left of the form.


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



Search

Account

Projects

Reports

Manual

[Privacy Notice](#)

Gene List for CMG

Please select the consortium for which you want to view/manage the gene list:

Consortium

CMG

Export

Gene(s)	Note	Associated Projects
Togaram1	Tier1	<a href="#">TPN:000000177</a> [ Status not defined ]
Fivcr2		
Tomm40l		
Myh6	Tier1	
Acta2	Tier1	
Myh7	Tier1	
Csnk2a1		
Fam126a	Tier1	
Rac3		

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 screenshot shows the 'Gene List for CMG' page in the CMG Manager application. The header includes the 'CMG Manager' logo and navigation links for Search, Account, Projects, Reports, and Manual. A 'Privacy Notice' link with an information icon is also present. Below the header, the page title is 'Gene List for CMG'. A message states: 'Please select the consortium for which you want to view/manage the gene list:'. A dropdown menu labeled 'Consortium' is set to 'CMG'. Below this, there are 'Import' and 'Export' buttons. The main content area displays a table with three columns: 'Gene(s)', 'Note', and 'Associated Projects'. The table contains five rows of data, each with a gene symbol in a pill-shaped button, a note, and an associated project ID.


Gene(s)	Note	Associated Projects
Togarm1	Tier1	TPN:000000177 [ Status not defined ]
Flvcr2		
Tomm40l		
Myh6	Tier1	
Acta2	Tier1	

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.



Search

Account

Projects

Reports

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Privacy Notice

History

Go back

Project Details.

Project id: TPN:000000041

Intentions:

Cpsf1 - cleavage and polyadenylation specific factor 1

Mus musculus

Accession Id: MGI:2679722

Allele Type: Null

Molecular Deletion

Mutation Type:

Assignment Assigned

Status:

Active?: ☒

Privacy: public

Withdrawn?: ☐

Recovery?: ☐

Comment:

Status Stamps

Production Plans

Plan Details

Plan id: PIN:0000000044

Status: Micro-injection Complete

WorkUnit: BCM

See plan