BovReg FAANG submission routes

Please refer to the BovReg Data Management Plan for whether data submission should follow the public or private submission route. There is a third submission route for data that does not belong in the public archives so that it can be shared across the consortia.

Summary of submission routes
1. BovReg FAANG public submissions
2. BovReg submission and private data portal
    a. BovReg private BioSample submissions
    b. BovReg private ENA submissions
3. Submission of other data that does not belong in public archives

At the bottom of this document is instruction on how to access the private data in the BovReg private data portal.

1. BovReg FAANG public submission

For public FAANG submissions please refer to the latest public submission instructions held at https://dcc-documentation.readthedocs.io/en/latest/

The public metadata rulesets can be viewed here https://data.faang.org/ruleset/samples
The metadata templates and submission system can be accessed from https://data.faang.org/validation/samples selecting whether you are performing a sample, experiment or analysis submission.

For any questions or issues with data submission please contact faang-dcc@ebi.ac.uk

2. BovReg Private Submission and Private Data Portal

To gain access to or submit data to the BovReg Private Data Portal (https://data.faang.org/projects/BovReg) requires personal access credentials. Each PI should email the BovReg coordinator with a list of names and email addresses that require accounts. Lab members will therefore need to ask their PI to do this. PIs should also email the coordinator to add or remove named individuals from this list. Once granted, account credentials will be sent directly to each named individual's

email address. Username reminders or password resets can be requested by emailing faang-dcc@ebi.ac.uk
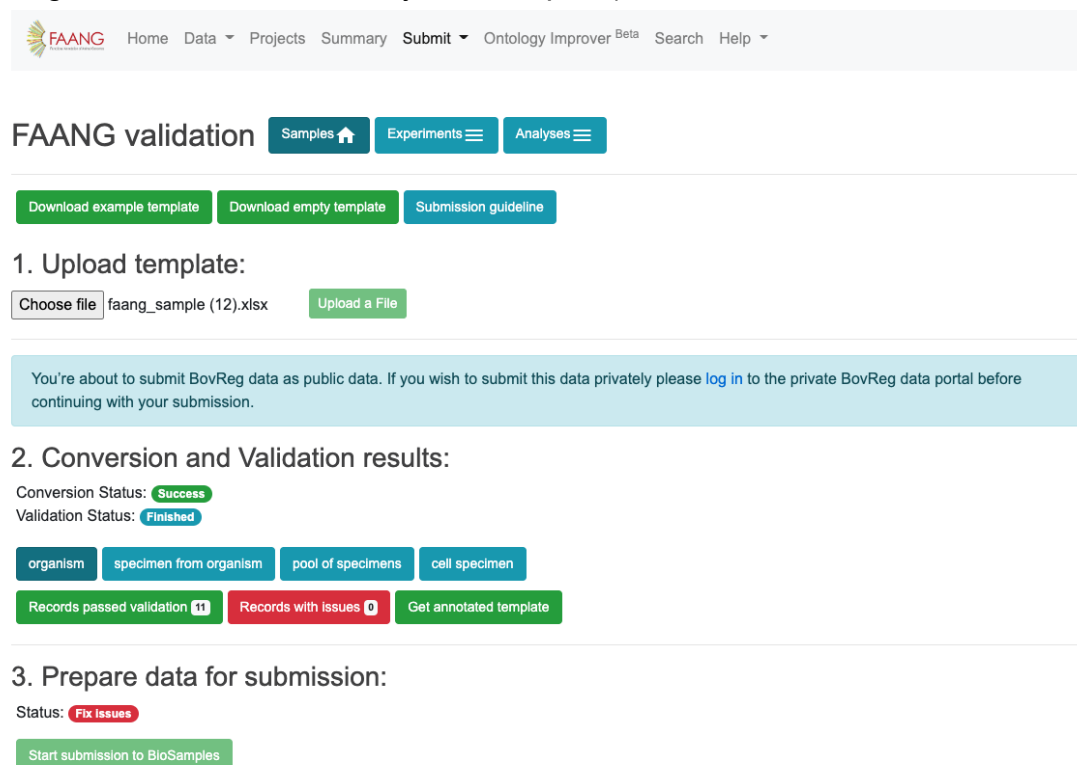
To perform a private BovReg data submission you will also need to request BovReg Webin account credentials from faang-dcc@ebi.ac.uk

1. Private BioSamples submission

Samples metadata will be submitted to the BioSamples archive at EBI (https://www.ebi.ac.uk/biosamples/) with a default release date of 2 years in the future, please contact faang-dcc@ebi.ac.uk if you want to release your data earlier or you want to move the release date for another 2 years in the future. All samples will stay private until they reach the release date and will only be accessible from inside the BovReg private data portal. The data should be released in accordance with the guidelines set by the journal for any publications.

1.1 Completing the template

Before completing the template make sure you've logged in to the private BovReg data portal here - https://data.faang.org/login (using credentials that faang-dcc sent in an email to you on request).

Picture 1, public data submission warning

For safety, you will see a warning as in the screenshot above if you try to submit BovReg data as public data, to double check that you had not intended to submit it privately.

You will know you are correctly logged in to the private submission portal if you see the approval of private data submission as in the screenshot below.

Picture 2, private data submission warning

Please make sure that you can see the banner as in the screenshot above if you want to submit BovReg daga as private data.

Then you can follow the same steps as in public data submission described here - https://dcc-documentation.readthedocs.io/en/latest/sample/biosamples_template/

1.2 Validation and Submission

Please follow the steps described here for validation -
https://dcc-documentation.readthedocs.io/en/latest/sample/biosamples_validation_conversion/ and here for submission -
https://dcc-documentation.readthedocs.io/en/latest/sample/biosamples_submission/

The only difference you will see for the submission step is that you won't need to provide your EBI AAP credentials and the system will allow you to submit straight away. This is because by being logged in to the private portal you are using the special BovReg private data submission user.

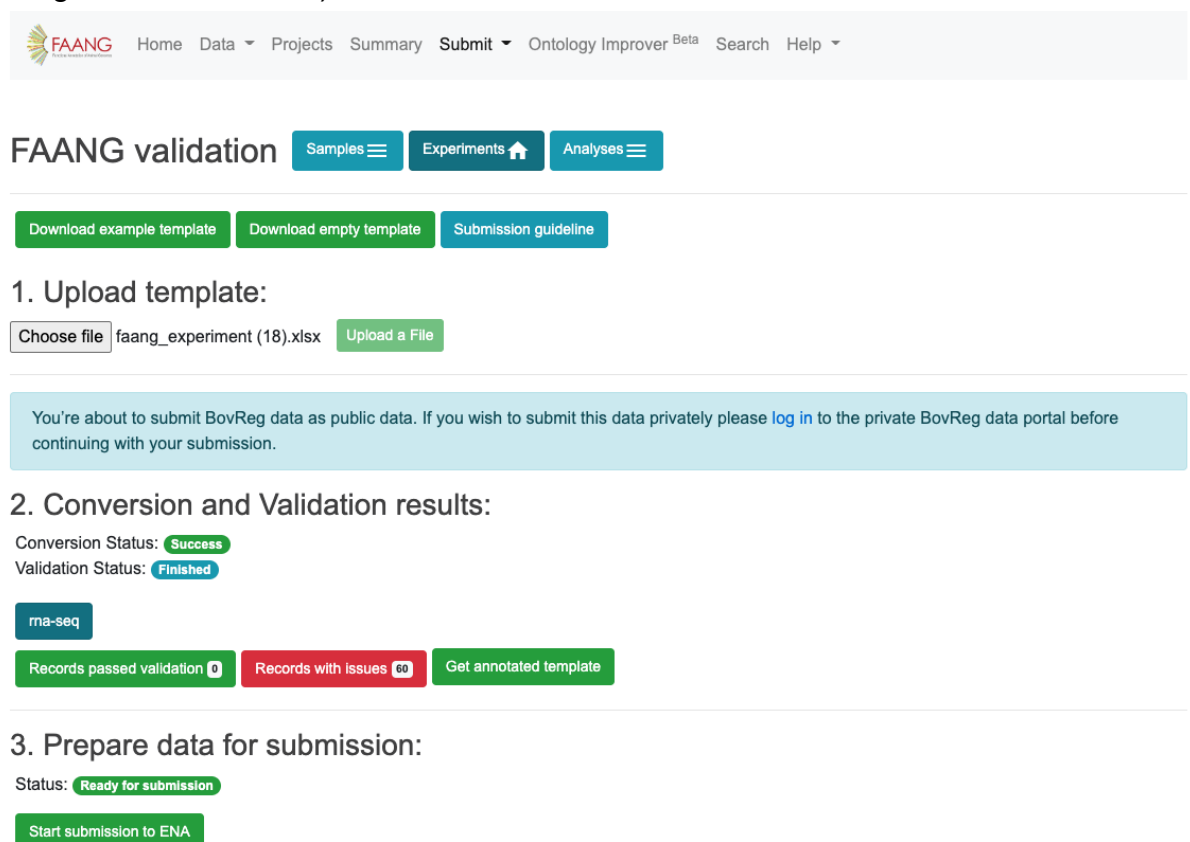*Picture 3, system allows to do a submission without providing credentials*

2. Private experiments and analyses submission to ENA

Experiments and analyses will be submitted to the ENA archive at EMBL-EBI (https://www.ebi.ac.uk/ena/browser/home) with release date moved for 2 years in the future, please contact faang-dcc@ebi.ac.uk if you want to release your data earlier or you want to move release date for another 2 years in the

future. All samples will stay private until they reach the release date and will only be accessible from inside the BovReg private data portal. The data should be released in accordance with the guidelines set by the journal for any publications.

2.1 Completing the template

Before completing the template make sure you've logged in to the private BovReg data portal here - https://data.faang.org/login (using credentials that faang-dcc sent in email).

Picture 4, public data submission warning

You will see a warning as in the screenshot above if you try to submit BovReg data as public data. You will see the approval of private data submission as in the screenshot below.

Picture 5, private data submission warning

Please make sure that you can see the banner as in the screenshot above if you want to submit BovReg daga as private data.
Then you can follow the same steps as in public data submission described here -
https://dcc-documentation.readthedocs.io/en/latest/experiment/ena_template/

2.2 Validation and Submission

Please follow the steps described here for validation -
https://dcc-documentation.readthedocs.io/en/latest/experiment/ena_validation_conversion/ and here for submission -
https://dcc-documentation.readthedocs.io/en/latest/experiment/ena_submission/
The only difference you will see for the submission step is that you won't need to provide your ENA Webin credentials and the system will allow you to submit straight away.

You're about to submit BovReg data as private data. If you wish to submit this publicly to FAANG then please logout of the Private BovReg data portal first.

2. Conversion and Validation results:

Conversion Status: **Success**
Validation Status: **Finished**

rna-seq

Records passed validation 0   **Records with issues 60**   **Get annotated template**

3. Prepare data for submission:

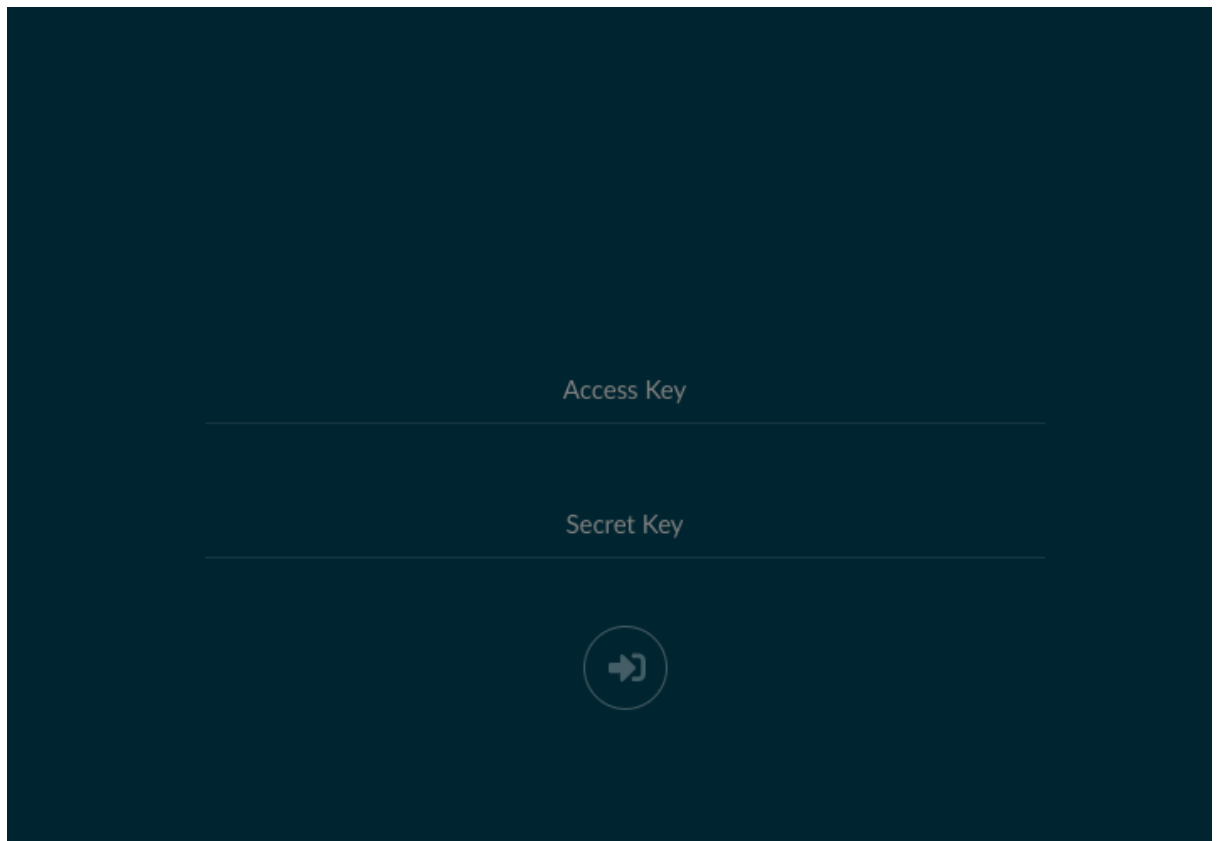Status: **Ready for submission**

Start submission to ENA

Picture 6, system allows to submit data without providing credentials

Before submission please make sure you've uploaded all files related to your submission to the FTP using Webin account provided to you by faang-dcc in email.

3. Submission of other data that does not belong in the public archives

3.1 Upload and share data through Minio server

You can create buckets, upload and share data through the dedicated Minio server http://45.88.80.231/minio/. Please login using credentials that faang-dcc sent you in email. After successful login you'll be able to create buckets (folders), upload and download data from the minio server.
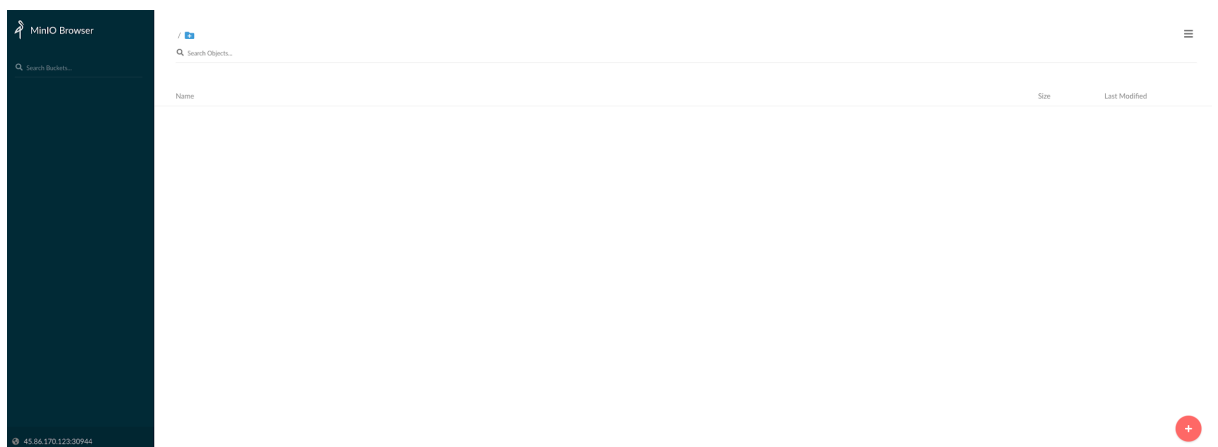
Picture 7, Minio server login view

Picture 8, Minio server data upload/download area

3.2 Upload and share data through BovReg AWS S3 bucket.

If you want to upload/download or share data programmatically faang-dcc could provide you with AWS S3 bucket credentials. Then you will be able to to

view the data available on the S3, download and upload the data using command provided in the screenshot below

```
# View the data on S3 bucket
aws --endpoint-url https://s3.embassy.ebi.ac.uk s3 ls s3://faang-data-portal-35823469/

# Upload file from local machine on the S3 bucket
aws --endpoint-url https://s3.embassy.ebi.ac.uk s3 cp {some_file} s3://faang-data-portal-35823469/

# Download file from S3 bucket to the local machine
aws --endpoint-url https://s3.embassy.ebi.ac.uk s3 cp s3://faang-data-portal-35823469/{some_file} /path/for/file/on/local/machine/{some_file}
```

Picture 9, aws S3 commands

Getting access to the data in the BovReg private data portal

You can get access to the private data through BovReg private data portal.

To gain access to the BovReg Private Data Portal (https://data.faang.org/projects/BovReg) requires personal access credentials. Each PI should email the BovReg coordinator with a list of names and email addresses that require accounts. Lab members will therefore need to ask their PI to do this. PIs should also email the coordinator to add or remove named individuals from this list. Once granted, account credentials will be sent directly to each named individual's email address. Username reminders or password resets can be requested by emailing faang-dcc@ebi.ac.uk

After successful login here - https://data.faang.org/login (using credentials that faang-dcc sent in email) you will be redirected to the BovReg private data portal.

For more information on the BovReg project: BovReg

Related Publications `Column selection ▾`

Title	Year	Journal
Comparative Analysis of the Circular Transcriptome in Muscle, Liver, and Testis in Three Livestock Species.	2021	Front Genet
Biological Network Approach for the Identification of Regulatory Long Non-Coding RNAs Associated With Metabolic Efficiency in Cattle.	2019	Front Genet
Single-cell RNA sequencing of freshly isolated bovine milk cells and cultured primary mammary epithelial cells.	2021	Sci Data
Identification and Annotation of Potential Function of Regulatory Antisense Long Non-Coding RNAs Related to Feed Efficiency in <i>Bos taurus</i> Bulls.	2020	Int J Mol Sci

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Related Pipelines `Column selection ▾`

Pipeline name	Assay type	Pipeline link	Pipeline documentation	Platform
BovReg/nf-core-rnaseq	RNA-seq	https://github.com/BovReg/nf-core-rnaseq	https://github.com/BovReg/nf-core-rnaseq#readme	nf-core

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Related Datasets `Column selection ▾`

Study name	Species	Archive	Assay type
PRJEB43235 🔒	Bos taurus	ENA	CAGE-seq
PRJEB48026 🔒	Bos taurus	ENA	transcription profiling by high throughput sequencing
PRJEB48309 🔒	Bos taurus	ENA	transcription profiling by high throughput sequencing
PRJEB48884 🔒	Bos taurus	ENA	microRNA profiling by high throughput sequencing
PRJEB51474 🔒	Bos taurus	ENA	transcription profiling by high throughput sequencing
PRJEB51824 🔒	Bos taurus	ENA	whole genome sequencing assay

Picture 10, BovReg private data portal view

We use the JWT authentication system and for security reasons your private session is restricted by 1 hour, if you want to extend your private access just click on the 'Refresh Token' button at the top of the screen.

All private records will have a 'lock' sign near the record id to distinguish them from all of the public records that will only have an id in the table.

Accession numbers in the table are clickable and provide detailed view upon click (ex. https://data.faang.org/dataset/PRJEB43235).   To download raw data click on checkboxes in the last column of the "Related Files" table. It's possible to download

all files by clicking on the checkbox in the header of the table.

Picture 11, Raw data download functionality

To download analyses data just click on accession number in the "Related Analyses" table and then choose files to download in detailed analyses view

Picture 11, Analyses data download functionality