Example Queries for Experiment Metadata

EXAMPLE QUERIES FOR EXPERIMENT METADATA

The following query examples demonstrate how to use RESTful Model Access (RMA) to retrieve metadata for experiments.

- SectionImage Download Service can be used to download images.
- WellKnownFile Download Service can be used to download a file.

Please note that multiple line example RMA queries on this page represent spaces enclosed in quotation marks with the "+" character to make the examples compatible with some browsers.

Allen Brain Atlas API Status

Date Updated

```
http://api.brain-map.org/api/v2/status/query.xml
```

Mouse Brain

All Mouse Brain ISH experiments

```
http://api.brain-map.org/api/v2/data/query.xml?criteria=
model::SectionDataSet,
rma::criteria,[failed$eqfalse],products[abbreviation$eq'Mouse'],treatments
[name$eq'ISH'],
rma::include,genes,specimen(donor(age)),plane_of_section
&num_rows=50&start_row=0
```

All Mouse Brain ISH experiments in comma delimited format

```
http://api.brain-map.org/api/v2/data/query.csv?criteria=
model::SectionDataSet,
rma::criteria,[failed$eqfalse],products[abbreviation$eq'Mouse'],treatments
[name$eq'ISH'],genes,plane_of_section,
rma::options,
[tabular$eq'plane_of_sections.name+as+plane','genes.acronym+as+gene','data
_sets.id+as+section_data_set_id'],
[order$eq'plane_of_sections.name,genes.acronym,data_sets.id']
&num_rows=50&start_row=0
```

Sagittal Mouse Brain ISH experiments for Adora2a

```
http://api.brain-map.org/api/v2/data/query.xml?criteria=
model::SectionDataSet,
rma::criteria,[failed$eq'false'],products[abbreviation$eq'Mouse'],plane_of
_section[name$eq'sagittal'],genes[acronym$eq'Adora2a']
```

Images for sagittal Mouse Brain ISH Adora2a experiment 70813257

```
http://api.brain-map.org/api/v2/data/query.xml?criteria=
model::SectionImage,
rma::criteria,[data_set_id$eq70813257]
```

Mouse Brain coronal images for Adora2a in comma delimited format

```
http://api.brain-map.org/api/v2/data/query.csv?criteria=
model::SectionDataSet,
rma::criteria,[failed$eqfalse],products[abbreviation$eq'Mouse'],treatments
[name$eq'ISH'],genes[acronym$eq'Adora2a'],plane_of_section,section_images,
rma::options,
[tabular$eq'plane_of_sections.name+as+plane','genes.acronym+as+gene','data
_sets.id+as+section_data_set_id','sub_images.id+as+section_image_id'],
[order$eq'plane_of_sections.name,genes.acronym,data_sets.id,sub_images.id']
&num_rows=50&start_row=0
```

Expression summary for coronal Adora2a experiment 72109410

```
http://api.brain-map.org/api/v2/data/SectionDataSet/query.xml?id=72109410&
include=structure_unionizes(structure)
```

Mouse Connectivity

Projection summary for Mouse Connectivity experiment 183282970 in comma delimited format

```
http://api.brain-map.org/api/v2/data/query.csv?criteria=
model::ProjectionStructureUnionize,
rma::criteria,[is_injection$eq'f'],hemisphere,structure,section_data_set[i
d$eq183282970](specimen(stereotaxic_injections(primary_injection_structure
,stereotaxic_injection_coordinates))),rma::include,section_data_set(specim
en(stereotaxic_injections(primary_injection_structure))),
rma::options[tabular$eq'distinct+specimens.name+as+specimen_name,stereotax
ic_injection_coordinates.coordinates_ap,stereotaxic_injection_coordinates.
coordinates_dv,stereotaxic_injection_coordinates.coordinates_ml,data_sets.
id+as+data_set_id,stereotaxic_injections.primary_injection_structure_id,st
ructures.acronym+as+target_structure,hemispheres.symbol+as+hemisphere,proj
ection_structure_unionizes.is_injection,projection_structure_unionizes.sum
_pixels,projection_structure_unionizes.sum_projection_pixels,projection_st
ructure_unionizes.sum_pixel_intensity,projection_structure_unionizes.sum_p
rojection_pixel_intensity,projection_structure_unionizes.projection_densit
y,projection_structure_unionizes.projection_intensity,projection_structure
_unionizes.projection_energy,projection_structure_unionizes.volume,project
ion_structure_unionizes.projection_volume,projection_structure_unionizes.n
ormalized_projection_volume,projection_structure_unionizes.max_voxel_densi
ty,projection_structure_unionizes.max_voxel_x,projection_structure_unioniz
es.max_voxel_y,projection_structure_unionizes.max_voxel_z'][start_row$eq0]
[num_rows$eq3000]
```

Developing Mouse Brain

All Developing Mouse Brain ISH experiments with images

```
http://api.brain-map.org/api/v2/data/query.xml?criteria=
model::SectionDataSet,
rma::criteria,[failed$eqfalse],products[abbreviation$eq'DevMouse'],treatme
nts[name$eq'ISH'],
rma::include,genes,specimen(donor(age)),plane_of_section,section_images
&num_rows=10&start_row=0
```

All Developing Mouse Brain Genes in comma delimited format

```
http://api.brain-map.org/api/v2/data/query.csv?criteria=
model::Gene,
rma::criteria,products[abbreviation$eq'DevMouse'],
rma::options,[tabular$eq'genes.id','genes.acronym+as+gene_symbol','genes.n
ame+as+gene_name','genes.entrez_id+as+entrez_gene_id','genes.homologene_id
+as+homologene_group_id'],
[order$eq'genes.acronym']
&num_rows=all&start_row=0
```

P28 Developing Mouse Brain ISH experiments for Gad1

```
http://api.brain-map.org/api/v2/data/query.xml?criteria=
model::SectionDataSet,
rma::criteria,[failed$eq'false'],products[abbreviation$eq'DevMouse'],speci
men(donor(age[name$eq'P28']))
```

Developing Mouse Brain P28 ISH images for Gad1

```
http://api.brain-map.org/api/v2/data/query.xml?criteria=
model::SectionDataSet,
rma::criteria,[failed$eq'false'],
rma::include,genes[acronym$eq'Gad1'],section_images,specimen(donor(age[nam
e$eq'P28']))
```

Sleep Study

Sleep Study ISH experiments with images, including the experimental condition:

```
http://api.brain-map.org/api/v2/data/query.xml?criteria=
model::SectionDataSet,
rma::criteria,[failed$eqfalse],products[abbreviation$eq'Sleep'],treatments
[name$eq'ISH'],
rma::include,probes(gene),plane_of_section,specimen(donor(disease_categori
es,medical_conditions)),section_images
&num_rows=10
```

Human Brain

Human Brain ISH Autism Study experiments with images, including the donor's conditions

```
http://api.brain-map.org/api/v2/data/query.xml?criteria=
model::SectionDataSet,
rma::criteria,[failed$eqfalse],products[abbreviation$eq'HumanASD'],treatme
nts[name$eq'ISH'],
rma::include,probes(gene),specimen(donor(age,disease_categories,medical_co
nditions)),section_images
&num_rows=10
```

Human Brain Microarray experiments

```
http://api.brain-map.org/api/v2/data/query.xml?criteria=
model::MicroarraySlide,
rma::criteria,microarray_data_sets[failed$eqfalse](products[abbreviation$e
q'HumanMA']),
rma::include,structures,well_known_files,microarray_data_sets(specimen(don
or(age)))
```

Developing Human Brain

Developing Human Brain ISH experiments with images

```
http://api.brain-map.org/api/v2/data/query.xml?criteria=
model::SectionDataSet,
rma::criteria,[failed$eqfalse],products[abbreviation$eq'DevHumanISH'],trea
tments[name$eq'ISH'],
rma::include,probes(gene),specimen(donor(age,disease_categories,medical_co
nditions)),section_images
&num_rows=10
```

Expression summary for GAD1 Developing Human Brain ISH

```
http://api.brain-map.org/api/v2/data/SectionDataSet/query.xml?id=73931410&
include=structure_unionizes(structure)
```

Developing Human Brain Prenatal LMD Microarray experiments

```
http://api.brain-map.org/api/v2/data/query.xml?criteria=
model::MicroarraySlide,
rma::criteria,microarray_data_sets[failed$eqfalse](products[abbreviation$e
q'DevHumanMA']),
rma::include,structures,well_known_files,microarray_data_sets(specimen(don
or(age)))
```

Developing Human Brain Transcriptome experiments

```
http://api.brain-map.org/api/v2/data/query.xml?criteria=
model::Specimen,
rma::criteria,data_sets(products[abbreviation$eq'DevHumanTrans']),
rma::include,structure,donor,well_known_files(well_known_file_type)
```