G51D SNCA rat (MRC Centre for Regenerative Medicine)

https://neurodegenerationresearch.eu/survey/g51d-snca-rat-mrc-centre-for-regenerative-medicine/

Name of Resource

G51D SNCA rat (MRC Centre for Regenerative Medicine)

Name of Principal Investigator - Title

Dr

Name of Principal Investigator - First name

Tilo

Name of Principal Investigator - Last name

Kunath

Address of institution -Institution

MRC Centre for Regenerative Medicine, Univerisity of Edinburgh

Address of institution - Street address

5 Little France Drive

Address of institution - City

Edinburgh

Address of institution - Postcode

EH16 4UU

Country

United Kingdom

Website

http://www.crm.ed.ac.uk/people/tilo-kunath

Contact email

tilo.kunath@ed.ac.uk

Summary

CRISPR/Cas9 technology was used by Dr Tomoji Mashimo (Kyoto Univeristy) to introduce a single amino acid mutation (Gly-51-Asp) into the endogenous rat alpha-synuclein gene. This rat model is currently being characterised, but preliminary transcriptomic data on the midbrain of G51D/+ 11-month-old animal shows reduced expression of dopaminergic transcripts, including tyrosine hydroxylase. Frozen sperm for this model have been deposited into the National BioResource Project for the Rat in Japan ((http://www.anim.med.kyoto-u.ac.jp/NBR).

Q1a. Please indicate below if your cohort includes or expects to include, incidence of the following conditions? (1)

Parkinson's disease & PD-related disorders

Q1b. Does your resource hold

Animals| Frozen sperm

Q2a. Does the resource act as a centre for access and distribution to external groups (who are not the Principal Investigators (PI) for the resource)?

Yes

Q2b. If Yes, what procedures and rules apply for access?

Access independent of collaboration with PI| International access

Q3a. Does your resource develop experimental models (animal/cell) for external groups?

No

Q3b. If YES and your resource is related to an ANIMAL model, what types of models are provided?

Genetically modified

Q3c. If YES and your resource is related to a CELL model, what types of models are provided?
Q4a. Is this activity supported as:

A collaboration

Q4b. Do you deposit what you supply in any kind of central repository?

Yes

Disease

PD

Species

Rat

Available to external user

Yes

Full phenotypic character

characterisation in-progress

Please indicate the phenotypes

reduced tyrosine hydroxylase expression in midbrain of G51D/+ rats

List of genotypes or other subtypes

G51D/+ and G51D/G51D

Q5b. Cognitive function, No of models
Q5b. Cognitive function, Available to external users
Q5b. Cognitive function, Full phenotypic characterisation
Q5b. Cognitive function, Nature of phenotype
Q5b. Motor function, No of models
Q5b. Motor function, Available to external users
Q5b. Motor function, Full phenotypic characterisation
Q5b. Motor function, Nature of phenotype
Q5b. Physiological function, no of models
Q5b. Physiological function, Available to external users
Q5b. Physiological function, Full phenotypic characterisation
Q5b. Physiological function, Nature of phenotype
Q5b. Other function (please specify), no of models
Please specify other function
Q5b. Other function (please specify), Available to external users
Q5b. Other function (please specify), Full phenotypic characterisation
Q5b. Other function (please specify), Nature of phenotype
Q6. Please indicate if your resource is already linked into European or international consortia or networks?

National BioResource Project for the Rat in Japan

Q7a. Is maintenance of this resource dependent on continued funding?

Yes

Q7b. If yes, when does the current funding period end?

2019

Q7c. What is the expected lifespan of the resource (in years)?

Indefinite

Q7d. Are there other plans affecting future use that it may be useful to know?

No

Types:
Experimental Models

Member States:
United Kingdom

Diseases:
N/A

Years:
2016

Database Categories:
N/A

Database Tags:
N/A