Plan Overview

A Data Management Plan created using DMPTool

Title: NAN 708-01

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Funder: Digital Curation Centre (dcc.ac.uk)

Template: Digital Curation Centre

Project abstract:

The study investigates how carbon nanodots, a novel antioxidant carbon-based nanomaterial, protect against lipid peroxidation in the brain caused by abnormal cholesterol metabolism. We used LDL receptor-deficient mice to model disrupted cholesterol processing and oxidative stress and compared them to normal C57BL/6J mice. We treated these mice with carbon nanodots for 16 weeks. We found that the treatment significantly reduced lipid peroxidation and iron levels in the brain regions of the LDL receptor-deficient mice without affecting the normal mice. This demonstrates the antioxidative potential of carbon nanodots. Moreover, the treatment also reduced anxiety-like behaviors in the LDL receptor-deficient mice, suggesting carbon nanodots' therapeutic potential against oxidative stress-induced damage.

Start date: 03-05-2024

End date: 03-10-2024

Last modified: 03-05-2024

Copyright information:

NAN 708-01

Mice experiment

Experiment and Software

Excel

Developing a Code of Ethics

Ethical Leadership

Training and Awareness Programs

Stakeholder Engagement

Ethical Decision-Making Processes

Understanding Copyright Laws

Implementing Clear Copyright Policies

Educating Stakeholders

Using Copyrighted Materials Responsibly

Monitoring and Enforcement

Promoting and Using Open Licenses

Collaborating with Copyright Owners

Innovating within Legal Frameworks

Engaging in Policy Advocacy

Seeking Legal Advice

Online cloud and local disk

setting up a strong password and security check

Important data

GitHub or Cloud

Google, Microsoft Team, Github

No

Chenhao Tang

DMP Tool

Planned Research Outputs

Dataset - "Mice Knockout"

Planned research output details

Title	Type	Anticipated release date	Initial access level	Intended repository(ies)	Anticipated file size	License	Metadata standard(s)	May contain sensitive data?	May contain PII?
Mice Knockout	Dataset	2024-03-19	Restricted	Clinical Trials Registry - India Canadian Open Genetics Repository		Creative Commons Attribution 4.0 International	ABCD (Access to Biological Collection Data)	No	No