Hargreaves Test UCD_HRG_001

Purpose

To assess thermal hyperalgesia in the mouse paw.

Experimental Design

Minimum number of mutant animals: 7 males + 7 females

Age at test: 16-17 weeks

Sexual dimorphism:

Procedure

1. Baseline measurement
    1. Transfer mouse to the testing arena and allow to acclimate to the test environment.
    2. Ensure that the intensity and cut-off timer of the radiant heat source are set correctly.
    3. Position the light source below the platform and directed at the correct part of the paw.
    4. Turn the light source on and record the latency to paw withdrawal. The stimulus is terminated once a response is registered, or if the maximum exposure time is reached before the animal responds.
    5. Repeat the test so that each mouse is tested three times with the same paw.
3. Challenge
    1. The challenge is administered after the baseline measurement has been completed.
    2. Anaesthetise the mouse and administer the challenge injection.
5. Test 1
    1. After the specified length of time since the challenge injection, the mouse is re-tested using the same procedure as described for the baseline measurement.
7. Test 2
    1. After the specified length of time since the challenge injection, the mouse is re-tested again using the same procedure as described for the baseline measurement.

Notes

This procedure is a pilot study from the Pain Phenotyping Pilot

Parameters and Metadata

Radiant heat light source manufacturer UCD_HRG_032_001 | v1.0

procedureMetadata

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Options: IITC,

Site of challenge injection UCD_HRG_013_001 | v1.0

procedureMetadata

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Options: Plantar surface of right hind paw,

Testing chamber dimensions UCD_HRG_029_001 | v1.0

procedureMetadata

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Unit Measured: cm

Options: 12.7 cm H x 10.16 cm W x 10.16 cm L, 12.5 cm H x 10 cm W x 10 cm L,

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Disinfectant UCD_HRG_035_001 | v1.0

procedureMetadata

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Options: Coverage Plus Working Solution, Clidox and 70% Ethanol, 1% Virkon,

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Test 2: average latency to withdrawal UCD_HRG_006_001 | v1.0
simpleParameter

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Unit Measured: s

Derivation: meanOfIncrements('UCD_HRG_005_001',1)

Time between challenge and test 2 UCD_HRG_017_001 | v1.0
procedureMetadata

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Unit Measured: Hours

Options: 144, 48,

Experimenter ID UCD_HRG_034_001 | v1.0
procedureMetadata

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

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Test 1: average latency to withdrawal UCD_HRG_004_001 | v1.0
simpleParameter

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Unit Measured: s

Derivation: meanOfIncrements('UCD_HRG_003_001',1)

Anaesthetic for challenge injection UCD_HRG_014_001 | v1.0
procedureMetadata

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Options: Isoflurane,

Lid colour/opacity UCD_HRG_028_001 | v1.0
procedureMetadata

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Options: Clear,

Glass base heated during acclimatisation UCD_HRG_008_001 | v1.0

procedureMetadata

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Options: Yes,

Baseline: average latency to withdrawal UCD_HRG_002_001 | v1.0

simpleParameter

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Unit Measured: s

Derivation: meanOfIncrements('UCD_HRG_001_001',1)

Length of acclimatisation period UCD_HRG_007_001 | v1.0

procedureMetadata

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Unit Measured: min

Options: 60, 30, 30 - 60,

Test intensity UCD_HRG_021_001 | v1.0

procedureMetadata

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Unit Measured: %

Options: 100, 25, 30, 15,

Glass base manufacturer UCD_HRG_030_001 | v1.0

procedureMetadata

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Options: IITC,

Idle intensity UCD_HRG_020_001 | v1.0

procedureMetadata

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Unit Measured: %

Options: 2, 3, 10,

Tetrad colour/opacity UCD_HRG_024_001 | v1.0

procedureMetadata

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Options: Clear,

Tetrad manufacturer UCD_HRG_022_001 | v1.0

procedureMetadata

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Options: IITC,

Time between challenge and test 1 UCD_HRG_016_001 | v1.0

procedureMetadata

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Unit Measured: Hours

Options: 24,

Minimum time between stimulus presentation UCD_HRG_011_001 | v1.0

procedureMetadata

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Unit Measured: min

Options: 2,

Tetrad material UCD_HRG_023_001 | v1.0

procedureMetadata

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Options: Acrylic,

Baseline: latency to withdrawal UCD_HRG_001_001 | v1.0

seriesParameter

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Unit Measured: s

Increments: 1, 2, 3,

Glass base temperature: settings UCD_HRG_018_001 | v1.0

procedureMetadata

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Unit Measured: C

Options: 34, 30, 32,

Inset colour/opacity UCD_HRG_026_001 | v1.0

procedureMetadata

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Options: White opaque, Clear,

Radiant heat light source model UCD_HRG_033_001 | v1.0

procedureMetadata

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Options: 390 Plantar test head (Item #300TH),

Time between baseline measurement and challenge injection UCD_HRG_015_001 | v1.0

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Unit Measured: Hours

Options: 0.5-1, 2, 24,

Challenge UCD_HRG_012_001 | v1.0

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Options: CFA,

Test 2: latency to withdrawal UCD_HRG_005_001 | v1.0

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Unit Measured: s

Increments: 1, 2, 3,

Inset material UCD_HRG_025_001 | v1.0

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Options: Acrylic,

Lid material UCD_HRG_027_001 | v1.0
procedureMetadata

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Options: Acrylic,

Test 1: latency to withdrawal UCD_HRG_003_001 | v1.0
seriesParameter

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Unit Measured: s

Increments: 2, 1, 3,

Glass base model UCD_HRG_031_001 | v1.0
procedureMetadata

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Options: Model 400 Heated Base (Item #400G),

Number of repeats per paw UCD_HRG_010_001 | v1.0

procedureMetadata

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Options: Right hind paw tested 3 times,

Maximum exposure time UCD_HRG_009_001 | v1.0

procedureMetadata

Req. Analysis: false   **Req. Upload:** true   **Is Annotated:** false

Unit Measured: s

Options: 30, 20,

Glass base temperature: measured UCD_HRG_019_001 | v1.0

procedureMetadata

Req. Analysis: false   **Req. Upload:** false   **Is Annotated:** false

Unit Measured: C

Options: 29-32,