

# Hargreaves Test JAX\_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: either 8 weeks or 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

**Baseline: latency to withdrawal** JAX\_HRG\_001\_001 | v1.0

seriesParameter

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

Unit Measured: s

Increments: 1, 2, 3,

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**Baseline: average latency to withdrawal** JAX\_HRG\_002\_001 | v1.0

simpleParameter

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

Unit Measured: s

Derivation: meanOfIncrements('JAX\_HRG\_001\_001',1)

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**Test 1: latency to withdrawal** JAX\_HRG\_003\_001 | v1.0

seriesParameter

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

Unit Measured: s

Increments: 1, 2, 3,

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**Test 1: average latency to withdrawal** JAX\_HRG\_004\_001 | v1.0

simpleParameter

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

Unit Measured: s

Derivation: meanOfIncrements('JAX\_HRG\_003\_001',1)

**Test 2: latency to withdrawal** JAX\_HRG\_005\_001 | v1.0

seriesParameter

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

Unit Measured: s

Increments: 1, 2, 3,

**Test 2: average latency to withdrawal** JAX\_HRG\_006\_001 | v1.0

simpleParameter

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

Unit Measured: s

Derivation: meanOfIncrements('JAX\_HRG\_005\_001',1)

## Length of acclimatisation period JAX\_HRG\_007\_001 | v1.0

procedureMetadata

Req. Analysis: false

Req. Upload: true

Is Annotated: false

Unit Measured: min

Options: 30, 30 - 60, 60,

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## Glass base heated during acclimatisation JAX\_HRG\_008\_001 | v1

.0

procedureMetadata

Req. Analysis: false

Req. Upload: true

Is Annotated: false

Options: Yes,

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## Maximum exposure time JAX\_HRG\_009\_001 | v1.0

procedureMetadata

Req. Analysis: false

Req. Upload: true

Is Annotated: false

Unit Measured: s

Options: 20, 30,

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## Number of repeats per paw JAX\_HRG\_010\_001 | v1.0

procedureMetadata

Req. Analysis: false

Req. Upload: true

Is Annotated: false

Options: Right hind paw tested 3 times,

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## Minimum time between stimulus presentation JAX\_HRG\_011\_0

01 | v1.0

procedureMetadata

Req. Analysis: false

Req. Upload: true

Is Annotated: false

Unit Measured: min

Options: 2,

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## Challenge JAX\_HRG\_012\_001 | v1.0

procedureMetadata

Req. Analysis: false

Req. Upload: true

Is Annotated: false

Options: CFA,

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## Site of challenge injection JAX\_HRG\_013\_001 | v1.0

procedureMetadata

Req. Analysis: false

Req. Upload: true

Is Annotated: false

Options: Plantar surface of right hind paw,

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## Anaesthetic for challenge injection JAX\_HRG\_014\_001 | v1.0

procedureMetadata

Req. Analysis: false

Req. Upload: true

Is Annotated: false

Options: Isoflurane,

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## Time between baseline measurement and challenge injection JAX\_HRG\_015\_001 | v1.0

procedureMetadata

Req. Analysis: false

Req. Upload: true

Is Annotated: false

Unit Measured: Hours

Options: 0.5-1, 2, 24,

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## Time between challenge and test 1 JAX\_HRG\_016\_001 | v1.0

procedureMetadata

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** false

**Unit Measured:** Hours

**Options:** 24,

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## Time between challenge and test 2 JAX\_HRG\_017\_001 | v1.0

procedureMetadata

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** false

**Unit Measured:** Hours

**Options:** 48, 144,

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## Glass base temperature: settings JAX\_HRG\_018\_001 | v1.0

procedureMetadata

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** false

**Unit Measured:** C

**Options:** 30, 32, 34,

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**Glass base temperature: measured** JAX\_HRG\_019\_001 | v1.0

procedureMetadata

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

Unit Measured: C

Options: 29-32,

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**Idle intensity** JAX\_HRG\_020\_001 | v1.0

procedureMetadata

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

Unit Measured: %

Options: 2, 3, 10,

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**Test intensity** JAX\_HRG\_021\_001 | v1.0

procedureMetadata

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

Unit Measured: %

Options: 15, 25, 30, 100,

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## Tetrad manufacturer JAX\_HRG\_022\_001 | v1.0

procedureMetadata

Req. Analysis: false

Req. Upload: true

Is Annotated: false

Options: IITC,

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## Tetrad material JAX\_HRG\_023\_001 | v1.0

procedureMetadata

Req. Analysis: false

Req. Upload: true

Is Annotated: false

Options: Acrylic,

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## Tetrad colour/opacity JAX\_HRG\_024\_001 | v1.0

procedureMetadata

Req. Analysis: false

Req. Upload: true

Is Annotated: false

Options: Clear,

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## Inset material JAX\_HRG\_025\_001 | v1.0

procedureMetadata

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** false

**Options:** Acrylic,

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## **Inset colour/opacity** JAX\_HRG\_026\_001 | v1.0

procedureMetadata

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** false

**Options:** Clear, White opaque,

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## **Lid material** JAX\_HRG\_027\_001 | v1.0

procedureMetadata

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** false

**Options:** Acrylic,

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## **Lid colour/opacity** JAX\_HRG\_028\_001 | v1.0

procedureMetadata

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** false

**Options:** Clear,

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## Testing chamber dimensions JAX\_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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## Glass base manufacturer JAX\_HRG\_030\_001 | v1.0

procedureMetadata

Req. Analysis: false

Req. Upload: true

Is Annotated: false

Options: IITC,

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## Glass base model JAX\_HRG\_031\_001 | v1.0

procedureMetadata

Req. Analysis: false

Req. Upload: true

Is Annotated: false

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

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# Radiant heat light source manufacturer JAX\_HRG\_032\_001 | v1.0

procedureMetadata

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

Options: IITC,

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# Radiant heat light source model JAX\_HRG\_033\_001 | v1.0

procedureMetadata

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

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

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# Experimenter ID JAX\_HRG\_034\_001 | v1.0

procedureMetadata

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

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# Disinfectant JAX\_HRG\_035\_001 | v1.0

procedureMetadata

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

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

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**Delta2: difference in latency to withdrawal** JAX\_HRG\_036\_001 | v1  
.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** false

**Unit Measured:** s

**Derivation:**

sub(meanOfIncrements('JAX\_HRG\_001\_001',1), meanOfIncrements('JAX\_HRG\_005\_001',  
1))

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