Age-related changes in cerebellar and hypothalamic function accompany non-microglial immune gene expression, altered synapse organization, and excitatory amino acid neurotransmission deficits

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DATA KEY FOR MATLAB home cage monitoring data files

These files can be read by MATLAB R6 or later versions. Each file represents one-day-one-mouse worth of data. Each file contains a single structure (MouseDayStruct) containing the following fields:

All times are reported in milliseconds from midnight of the day that the system was started unless otherwise specified

ExpName : experiment name
ExpRndName : experiment round name (identifies system cage rack)
Rnd : round (identifies system cage rack)
Run : identifies if longitudinal experiment
Sys : data collection system (usually same as cage rack)
Enc : enclosure (specific cage within the rack)
ExpDay : day from placing mice into the home cage system
Date : date mm/dd/yyyy
Mouse : mouse ID number
GroupCode : mouse cohort code
GroupName : mouse cohort name
meData : structure containing the above fields as well as the following information for load cell data
MoveOnCumCT_ms : column vector; movement start times for event, in ms
MoveOnOn_ms : not used
XM_cm : column vector; distance along x axis moved for event
YM_cm : column vector; distance along y axis moved for event
MoveQuality : column vector; data quality for event; good data = 1
MoveComment : column vector; comment number (if any) for event
PosOnCumCT_ms : not used
PosOffCumCT_ms : not used
PosDur_ms : column vector; movement event, duration in ms
XP_cm : column vector; drift corrected x position for event
YP_cm : column vector; drift corrected y position for event
PosQuality : column vector; data quality for positions; good data = 1
PosComment : column vector; comment number (if any) for event
peData : structure containing above fields as well as the following information for photobeam data
OnCumCT_ms : column vector; photobeam break start time for event, in ms
OffCumCT_ms : column vector; photobeam break stop time for event, in ms
OnOn_ms : column vector; photobeam duration from event; break start to event, in ms
Dur_ms : column vector; duration of photobeam event, in ms
OffOn_ms: column vector; duration of photobeam break stop time for event i to photobeam start time for event \(i+1\), in ms (photobeam interevent interval)

XP_cm: column vector; drift corrected x position for event \(i\)

YP_cm: column vector; drift corrected y position for event \(i\)

Quality: column vector; data quality for photobeam breaks; good data = 1

Comment: column vector; comment number (if any) for event \(i\)

PosQuality: column vector; data quality for positions; good data = 1

PosComment: column vector; comment number (if any) for event \(i\)

leData: structure containing above fields as well as information for lickometer data; organization identical to that of peData

nestData: structure containing above fields as well as information for nest position

Xcoord: user-provided visual x coordinate of nest (x = 1-3)

Ycoord: user-provided visual y coordinate of nest (y = 1-7)

CoordXPlim_cm: user x coordinate of nest potential range

CoordYPlim_cm: user y coordinate of nest potential range

PredXPlim_cm: predicted x coordinate of nest (generated during state analysis)

PredYPlim_cm: predicted y coordinate of nest (generated during state analysis)

UserXPlim_cm: not implemented

UserYPlim_cm: not implemented

LimitsType: limit type (only ‘coord’ supported)

CoordQuality: data quality for nest, good data = 1

CoordComment: data comment number (if any) for nest

PredQuality: data quality for nest prediction (generated during state analysis)

PredComment: data comment number (if any) for nest prediction

sysData: structure containing above fields as well as information for system operation

SysStartMT: system start time, military time

SysStopMT: system stop time, military time

SystemStartCumCT_hrs: system start time, hours from midnight of start day

SystemStopCumCT_hrs: system stop time, hours from midnight of start day

LightStartState: 1 if lights on, 0 if lights off when system started

LightsOffCumCT_hrs: time for lights off, hours from midnight of start day

LightsOnCumCT_hrs: time for lights on, hours from midnight of start day

LightsOffCumCT_ms: time for lights off, ms from midnight of start day

LightsOnCumCT_ms: time for lights on, ms from midnight of start day

StartStopQuality: successful system start, good data = 1

StartStopComment: data comment number (if any) for system start

LightsQuality: lights confirmed by system sensor, good data = 1

LightsComment: data comment number (if any) for lighting

sumData: structure containing above fields as well as summary data for this mouse, this day

StartAge_days: mouse age on this day (in days)
StartBW_g : mouse body weight at experiment start (g)
EndBW_g : mouse body weight at experiment finish (g)
AvgBW_g : mouse average body weight (g)
DeltaBW_g : change in mouse body weight over experiment (g)
Length_cm : mouse length (often not input)
Chow_g : mouse chow intake (g) for this day
DC_Chow_g : mouse dark cycle chow (g) for this day
LC_Chow_g : mouse light cycle chow (g) for this day
FeedingCoeff_mgs : feeding coefficient (grams ingested/photobeam break duration)
ChowType : not used
Liquid_g : mouse water intake (g) for this day
DC_Liquid_g : mouse dark cycle water (g) for this day
LC_Liquid_g : mouse light cycle water (g) for this day
LickingCoeff_mgl : licking coefficient (grams ingested/lickometer on duration)
LiquidType : not used
Move_m : mouse movement (m) for this day
DC_move_m : mouse dark cycle movement (m) for this day
LC_move_m : mouse light cycle movement (m) for this day
PerCageInt : percent of cage area crossed by mouse for this day
GenQuality : general experiment quality (1 = good data) for this day
GenComment : general experiment comment number (if any) for this day
ChowQuality : quality of feeding data (1 = good data) for this day
ChowComment : feeding comment number (if any) for this day
DC_ChowQuality : DC chow data quality (1 = good data) for this day
DC_ChowComment : DC chow comment number (if any) for this day
LC_ChowQuality : LC chow data quality (1 = good data) for this day
LC_ChowComment : LC chow comment number (if any) for this day
FeedingCoeffQuality : feeding coefficient quality (1 = good data) for this day
FeedingCoeffComment : feeding coefficient comment number (if any) for this day
LiquidQuality : quality of drinking data (1 = good data) for this day
LiquidComment : drinking comment number (if any) for this day
DC_LiquidQuality : DC drinking data quality (1 = good data) for this day
DC_LiquidComment : DC drinking comment number (if any) for this day
LC_LiquidQuality : LC drinking data quality (1 = good data) for this day
LC_LiquidComment : LC drinking comment number (if any) for this day
LickingCoeffQuality : drinking coefficient quality (1 = good data) for this day
LickingCoeffComment : drinking coefficient comment number (if any) for this day
MoveQuality : quality of movement data (1 = good data) for this day
MoveComment : movement comment number (if any) for this day
DC_MoveQuality : DC movement data quality (1 = good data) for this day
DC_MoveComment : DC movement comment number (if any) for this day
LC_MoveQuality : LC movement data quality (1 = good data) for this day
LC_MoveComment : LC movement comment number (if any) for this day
MEQuality : load beam data quality (1 = good data) for this day
<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>MEComment</td>
<td>load beam comment number (if any) for this day</td>
</tr>
<tr>
<td>PEQuality</td>
<td>photobeam data quality (1 = good data) for this day</td>
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<tr>
<td>PEComment</td>
<td>photobeam comment number (if any) for this day</td>
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<tr>
<td>LEQuality</td>
<td>lickometer data quality (1 = good data) for this day</td>
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<tr>
<td>LEComment</td>
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</tr>
<tr>
<td>NestQuality</td>
<td>nest data quality (1 = good data) for this day</td>
</tr>
<tr>
<td>NestComment</td>
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</table>