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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, break start, in ms
  - **Dur_ms**: column vector; duration of photobeam event, in ms
OffOn_ms : column vector; duration of photobeam break stop time for event, 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
MEComment : load beam comment number (if any) for this day
PEQuality : photobeam data quality (1 = good data) for this day
PEComment : photobeam comment number (if any) for this day
LEQuality : lickometer data quality (1 = good data) for this day
LEComment : lickometer comment number (if any) for this day
NestQuality : nest data quality (1 = good data) for this day
NestComment : nest comment number (if any) for this day