

2016

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

Stephen J. Bonasera

University of Nebraska Medical Center, sbonasera@unmc.edu

Jyothi Arikath

University of Nebraska Medical Center, jyothi.arikkath@unmc.edu

Michael D. Boska

University of Nebraska Medical Center, mboska@unmc.edu

Tammy R. Chaudoin

University of Nebraska Medical Center, tammy.chaudoin@unmc.edu

Nicholas W. DeKorver

University of Nebraska Medical Center, nicholas.dekorver@unmc.edu

See next page for additional authors

Follow this and additional works at: http://digitalcommons.unmc.edu/geriatrics_data

 Part of the [Geriatrics Commons](#)

Recommended Citation

Bonasera, Stephen J.; Arikath, Jyothi; Boska, Michael D.; Chaudoin, Tammy R.; DeKorver, Nicholas W.; Goulding, Evan H.; Hoke, Traci A.; Mojtahedzadah, Vahid; Reyelts, Crystal D.; Sajja, Balasrinivasa R.; Schenk, A. Katrin; Tecott, Laurence H.; and Volden, Tiffany A., "Age-related changes in cerebellar and hypothalamic function accompany non-microglial immune gene expression, altered synapse organization, and excitatory amino acid neurotransmission deficits" (2016). *Data: Geriatrics*. Paper 2.
http://digitalcommons.unmc.edu/geriatrics_data/2

This Dataset is brought to you for free and open access by the Geriatrics at DigitalCommons@UNMC. It has been accepted for inclusion in Data: Geriatrics by an authorized administrator of DigitalCommons@UNMC. For more information, please contact digitalcommons@unmc.edu.

Authors

Stephen J. Bonasera, Jyothi Arikath, Michael D. Boska, Tammy R. Chaudoin, Nicholas W. DeKorver, Evan H. Goulding, Traci A. Hoke, Vahid Mojtahedzedah, Crystal D. Reyelts, Balasrinivasa R. Sajja, A. Katrin Schenk, Laurence H. Tecott, and Tiffany A. Volden

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 _{<i>i</i>} in ms
MoveOnOn_ms	: not used
XM_cm	: column vector; distance along x axis moved for event _{<i>i</i>}
YM_cm	: column vector; distance along y axis moved for event _{<i>i</i>}
MoveQuality	: column vector; data quality for event _{<i>i</i>} ; good data = 1
MoveComment	: column vector; comment number (if any) for event _{<i>i</i>}
PosOnCumCT_ms	: not used
PosOffCumCT_ms	: not used
PosDur_ms	: column vector; movement event _{<i>i</i>} duration in ms
XP_cm	: column vector; drift corrected x position for event _{<i>i</i>}
YP_cm	: column vector; drift corrected y position for event _{<i>i</i>}
PosQuality	: column vector; data quality for positions; good data = 1
PosComment	: column vector; comment number (if any) for event _{<i>i</i>}
peData	: structure containing above fields as well as the following information for photobeam data
OnCumCT_ms	: column vector; photobeam break start time for event _{<i>i</i>} in ms
OffCumCT_ms	: column vector; photobeam break stop time for event _{<i>i</i>} in ms
OnOn_ms	: column vector; photobeam duration from event _{<i>i</i>} break start to event _{<i>i+1</i>} break start, in ms
Dur_ms	: column vector; duration of photobeam event _{<i>i</i>} , 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)
 Yccord : 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