

# Lorentz workshop on Complexity – Data Sets LUMC

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## **Behavior: Behavioral activity recording; wheel-running activity actograms and passive infrared (PIR) activity actograms.**

Beh1A: wheel-running data animal 1 (experiment: \_3 B5 260 W 6008558 (4))

Beh1B: PIR data animal 1 (experiment: \_3 B5 261 P 6008558 (5))

Beh1C: wheel-running data animal 2 (experiment: \_3 B5 263 W 6008547 (7))

Beh1D: PIR data animal 2 (experiment: \_3 B5 264 P 6008547 (8))

Beh2A: wheel-running animal 1 100 days old (experiment: a01\_100days)

Beh2B: wheel-running animal 1 300 days old (experiment: a01\_300days)

Beh2C: wheel-running animal 1 500 days old (experiment: a01\_500days)

Beh2D: wheel-running animal 1 700 days old (experiment: a01\_700days)

Beh2E: wheel-running animal 1 900 days old (experiment: a01\_900days)

Beh3A: wheel-running animal 2 100 days old (experiment: a05\_100days)

Beh3B: wheel-running animal 2 300 days old (experiment: a05\_300days)

Beh3C: wheel-running animal 2 500 days old (experiment: a05\_500days)

Beh3D: wheel-running animal 2 700 days old (experiment: a05\_700days)

Beh3E: wheel-running animal 2 900 days old (experiment: a05\_900days)

## **In vitro: Electrical activity recording in brain slices from appr. 100 cells**

Invitro1: Short day (L8:D16) recording animal 1 (experiment: fnR001Ashr - rat)

Invitro2: Short day (L8:D16) recording animal 2 (experiment: fnR003Bshr - rat)

Invitro3: Long day (L16:D8) recording animal 3 (experiment: LngdB0001 - rat)

Invitro4: Long day (L16:D8) recording animal 4 (experiment: LngdB0002 - rat)

## **Bioluminescence: Gene expression recorded using bioluminescence camera (1 timepoint per hour)**

Biolum1A: Animal 1, rostral slice, short photoperiod (L8:D16) (experiment: 131002 - Slice1A)

Biolum1B: Animal 1, caudal slice, short photoperiod (L8:D16) (experiment: 131002 - Slice1B)

Biolum1A: Animal 2, rostral slice, short photoperiod (L8:D16) (experiment: 140225 - Slice1A)

Biolum1B: Animal 2, caudal slice, short photoperiod (L8:D16) (experiment: 140225 - Slice1B)

Biolum2A: Animal 3, rostral slice, long photoperiod (L16:D8) (experiment: 140127 - Slice1A)

Biolum2B: Animal 3, caudal slice, long photoperiod (L16:D8) (experiment: 140127 - Slice1B)

## **Relation between time series from different scales**

### **In vivo + Behavior: Electrical activity in living animal from appr. 100 cells versus PIR data**

BehInvivo1: no running wheel 42: Animal 1 Electrical activity and PIR when animal had no running wheel

BehInvivo2: running wheel 42: Animal 1 Electrical activity and PIR when animal had a running wheel

BehInvivo3: no running wheel 60: Animal 2: Electrical activity and PIR when animal had no running wheel

BehInvivo4: running wheel 60: Animal 2: Electrical activity and PIR when animal had a running wheel