**AGENDA RED = current state**

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| **#** | **TOPIC** | **DESCRIPTION** | **OWNER** |
|  | PS19 Chronic sleep disruption | stain on slide: minitest of TH/cresyl with WT sections 🡪 failed, back to floating sections  Iba1-DAB on cortex (SD vs adlib): minitest. what cortical areas to compare? 🡪 failed, back to floating sections  LC injected mice: section/GFP & TH stain 🡪 inject 3x more WTs to identify AAV vol  AT100-DAB (SD vs adlib): what has Mickael done? When/where to expect it?  perfuse 10 month old for positive control (11mo = 7/27/17)  Systematic tau pathology: AT8 where?, AT100 where?, MC-1 where?, ThioS where? Spread: different with cSD?  FIJI for DAB RoI quantification  FIJI for IF co-localization cell counting  2 mo PS19+ (adlib): is there AT8 in the brainstem?  longitudinal rec: analyze spindles/sleep properties, test out DETOKS two chan (Ankit)  spindle auto vs manual | Ward/Korey |
|  | Boost sleep (ms models) | SK2 overexpress: <https://www.jax.org/strain/009602>  Hmox-/-: <https://www.jax.org/strain/008660>  Sleepy: not available |  |
|  | Optogenetics experiment | Baseline rec, insert blue LED  Test 40 Hz in W, NREM, REM  Test 1, 4, 8, 13 Hz in 3 states | Korey |
|  | Motor learning: tone reactivation | Build design #1 at scale of 5 animals, test parameters (freq/dB)  test arousal from NREM @ defined parameters  consider single-subject exp design: record sleep, play tone during sleep manually | Rebecca |
|  | huSpindle-tau paper | revise Ricardo’s feedback  discussion  spindle property literature search: mechanistically, how tau can alter density, duration. Ie. neuronal electrophysiological properties: resting membrane potential, input resistance, intrinsic excitability, and effects on T-type calcium channels and K+ channels that contribute to spindle generation  SWA QA: 0.7 R corr | Korey |
|  | msSpindle-rotarod paper | implant, experiment 4x more females  spindle changes with learning  spindle-SWA coupling with learning  compare first 2hr of spindles only  Target SLEEP | Korey |
|  | rpS6 and rotarod paper | Figure layout, Ward to get Photoshop/Illustrator  first draft  Target: | Andrew |
|  | Gist learn: F-B rotarod | boost Ns for 10F SD, 10F SD, 10B  20 trials group: (10F,20 min break,10F, 10B?)  cFos anterior cortex  inhibit PFC in NREM/REM/W…  Target: SciReports, BehaviorBrain, NLM | Ward |
|  | Computed Tomography Imaging | lit search tau/vascular changes  send one WT, one 2mo SD WT  if works, try PS19 |  |
|  | IACUC | New IACUC for PS19 mice, sleep disrupt, food restrict for training (VR and mototrak) |  |

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|  | GRANTS | Korey: F32, BrightFocus. Consider an LC manipulation Aims page  Andrew: R01 human (@IRB approval), R01 mouse (@aims page) |  |
|  | Mouse VR Maze | Implant headposts (5x)  build forward rotation (locomotion)  test freely moving enclosure, avoid head fixation  train forward rotation  deliver peanut oil, tone with arduino @ end gate  test corridor  test VR-“open field”  Software:  UE4 to blink LED? | Korey |