

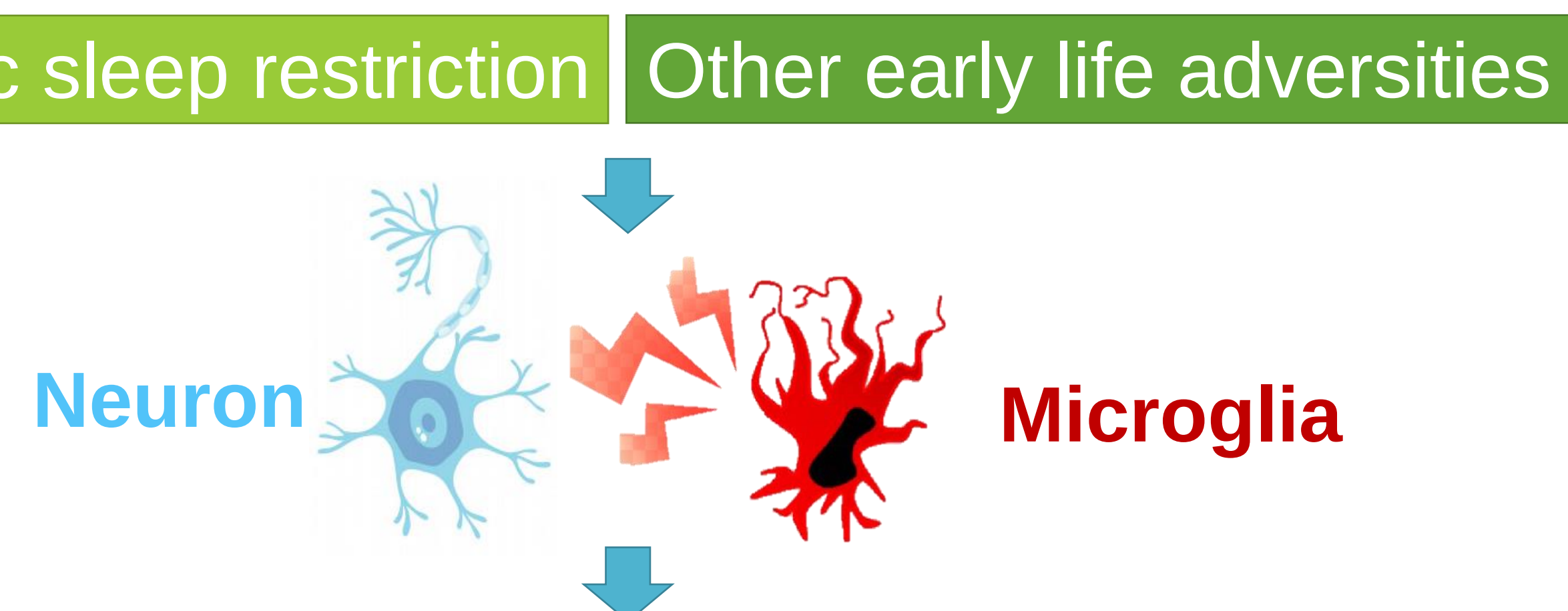
Adverse early life experience on the developing brain

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WHY WE ARE DOING THIS?

Adolescence is a critical transition period, with the necessity of proper nutrition, sleep, and exercise. Early positive intervention during this period can also help them to establish a healthy life both physically and mentally. However, modern society might not be a perfect haven for our teenagers. We can't ignore that adolescents are surrounded by various psychosocial and environmental stressors. A wealth of studies revealed that many concerning scientists that adverse experiences such as social pressure, substance abuse, and an unhealthy diet can endanger teenagers' brain development. The consequences of those stressors to their mental health are worth considering.



WHAT WE ARE GOING TO DO?

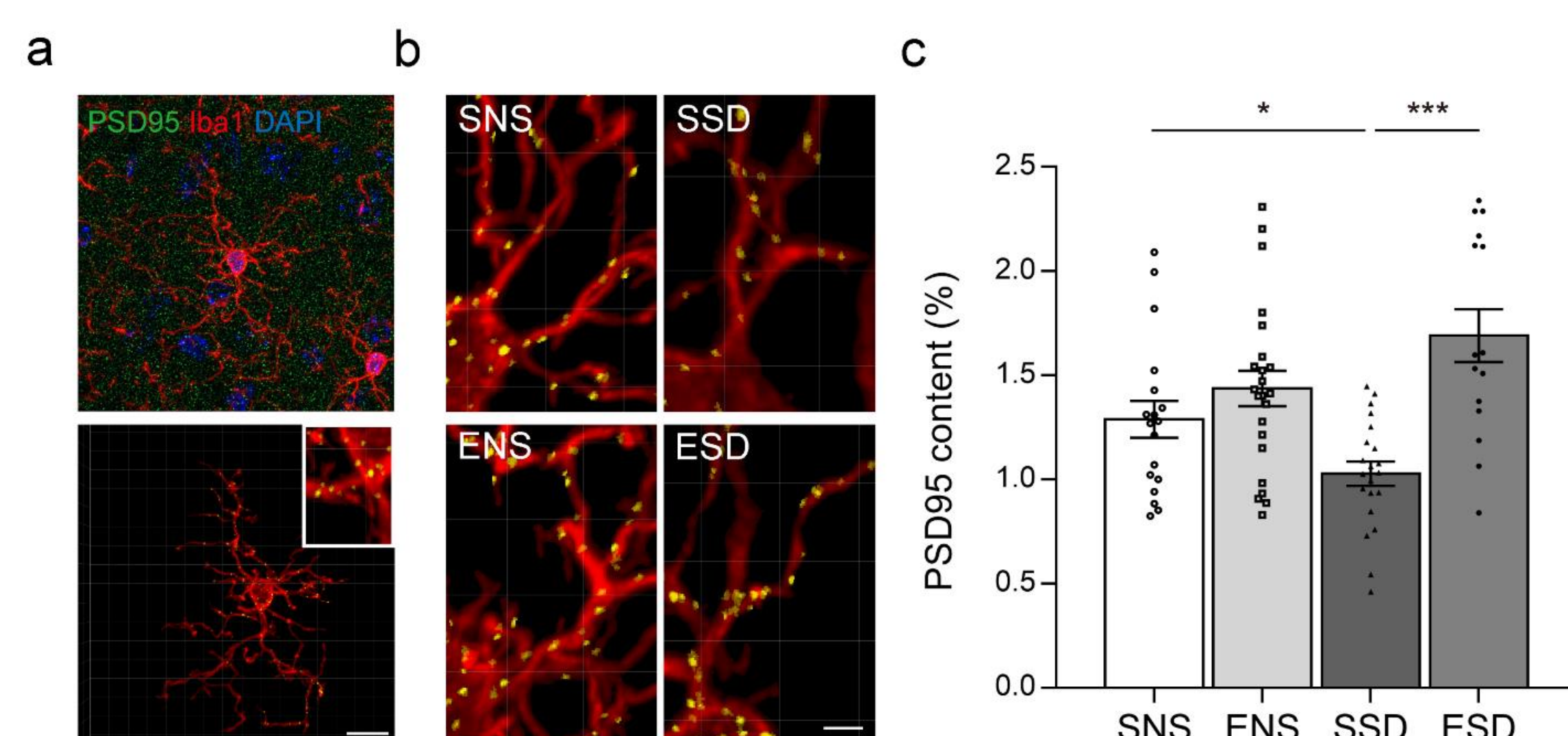
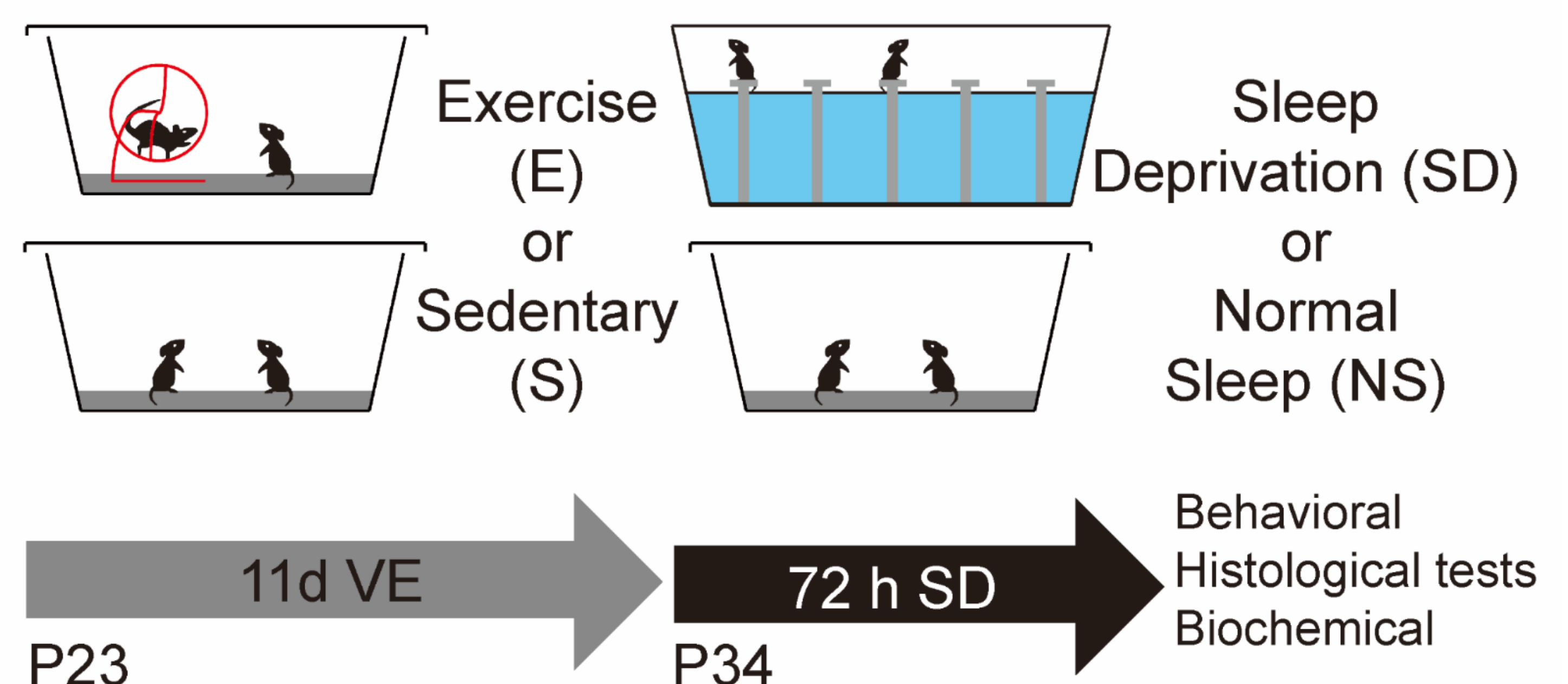
Our lab focuses on elucidating the effects of early life adversities, starting with chronic sleep restriction and then expand our research to other early life adversities, with attention to the interaction between microglia and neuron.

HOW DO WE APPROACH THIS?

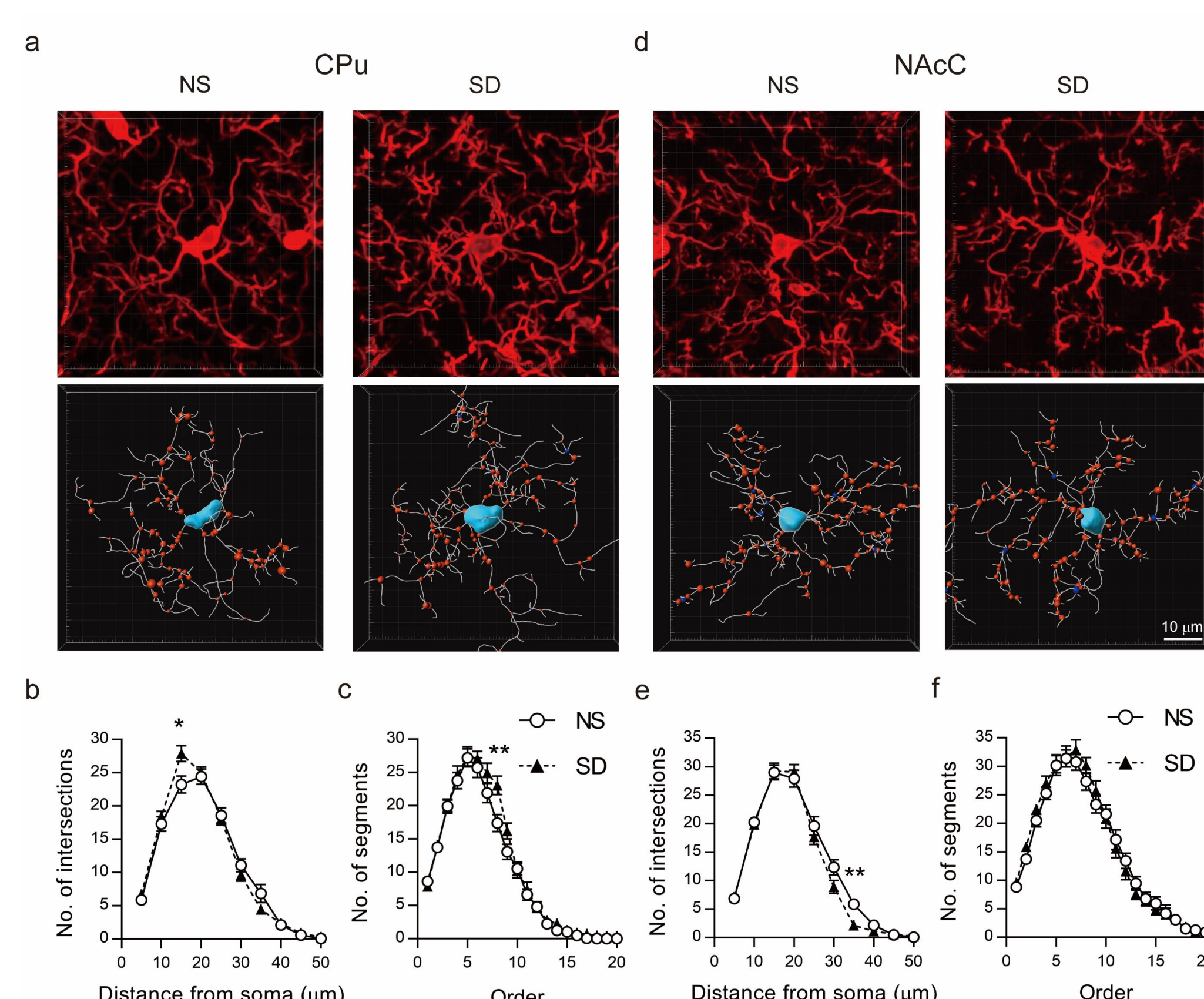
1. Animal model Establishment
2. Animal behavior assessment
3. Neuroanatomical imaging & analysis
4. Biochemical assays
5. Transcriptome & proteome database



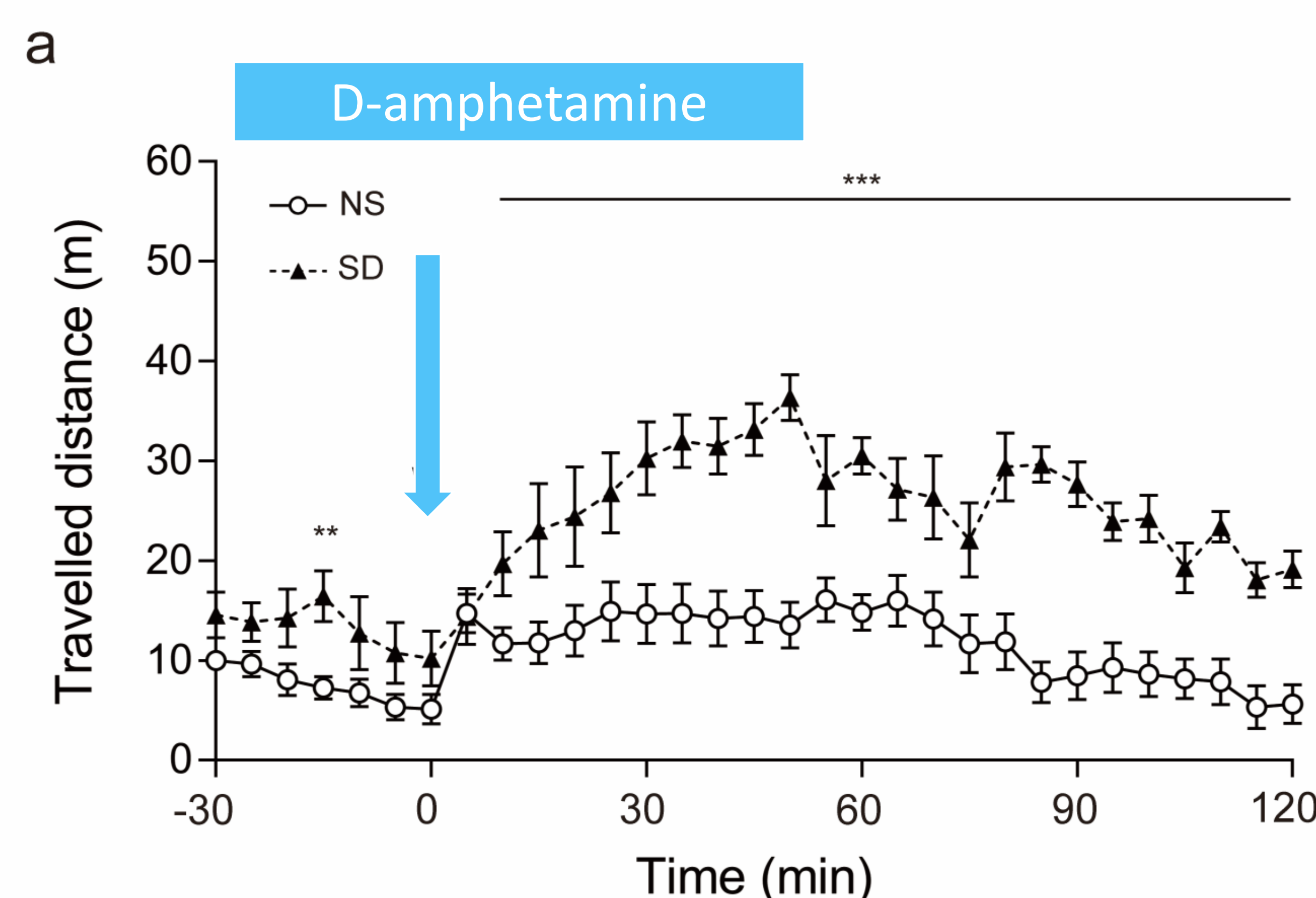
C57BL/6



Examples of 3D histological analysis.



An example to achieve voluntary exercise and sleep deprivation on mice



An example of animal behavior test (Amphetamine challenge).

WHO ARE WE SEEKING?

1. Who are attracted to neuroscience and neuroanatomy.
2. Who are interested in learning and establishing lab techniques.
3. Who are not afraid of animal experiments

