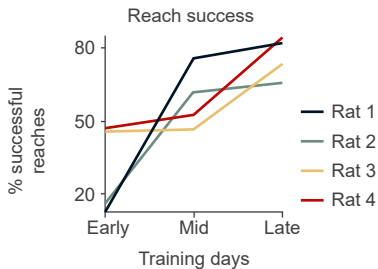
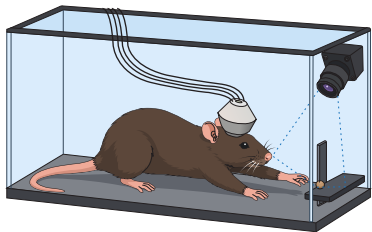


Rise and subsequent fall in neuro-behavioral coupling during learning a skilled reaching task is revealed by generative AI

Tanabe, Eckert, Ryait, Whishaw, Tatsuno & Luczak, *Commun Biol* (2026). DOI: 10.1038/s42003-026-10600-6

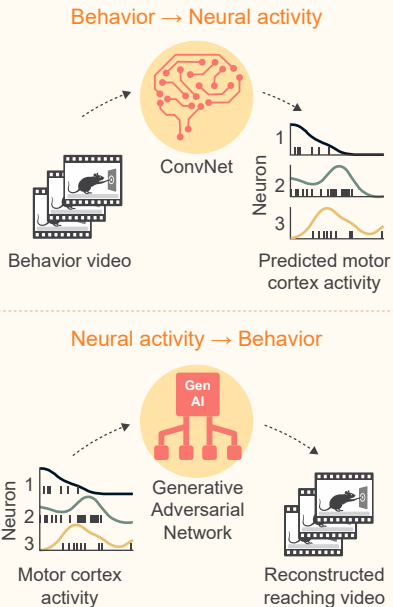
AI advances enable mapping of complex relationships between motor cortex activity and behavior

Motor cortex activity during skilled reaching

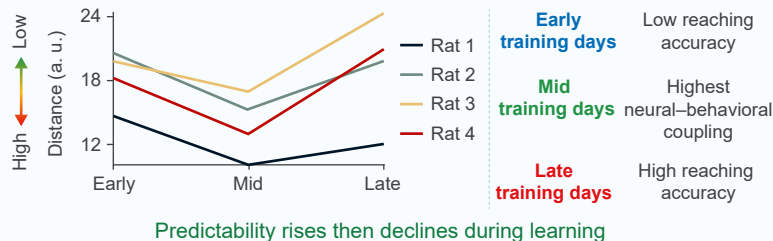


Task performance improves as learning progresses

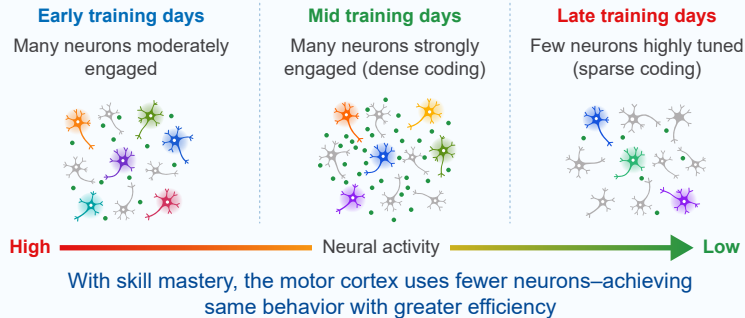
Bidirectional decoding of motor cortex and movement



Neuro-behavioral coupling is non-linear



Motor cortex reorganizes during learning



Generative AI reveals energy-efficient neural-behavioral coupling during learning