

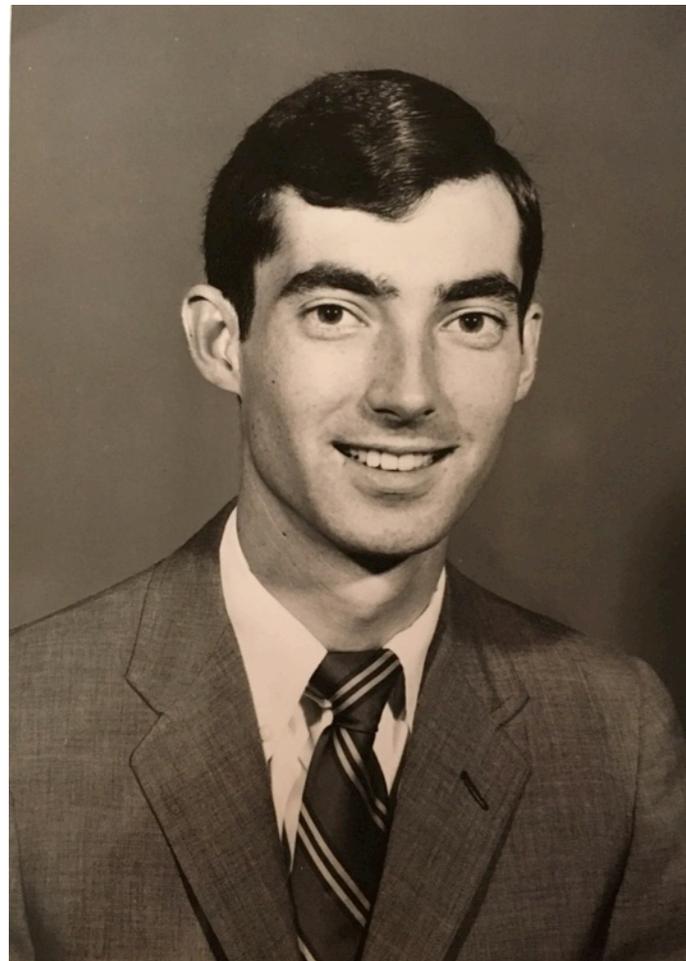
How the brain makes decisions and its importance for human health

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Decision making in everyday life



The personal impact of brain disorders



Story of my Dad

High functioning, friendly, successful.

In late 50s, personality started changing dramatically. Unfriendly and easily agitated. Poor decisions. Lost job.

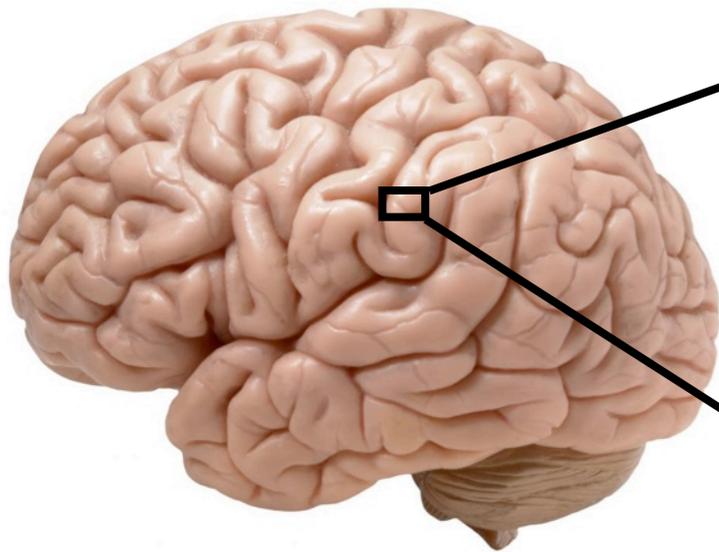
At 60, diagnosed with frontal-temporal dementia (FTD).

Needed full-time professional care by age 63.

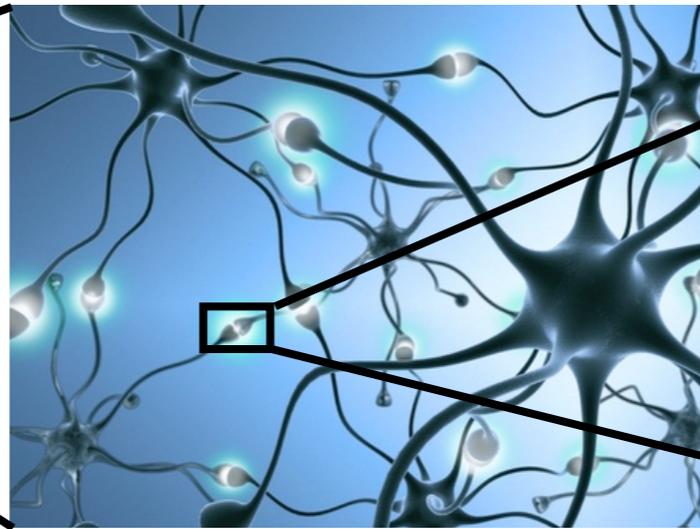
Passed away at age 65.

Why focus on neural mechanisms?

Brain



Neural circuit



Synapse



To find potential targets for clinical interventions that can improve decision making impairments

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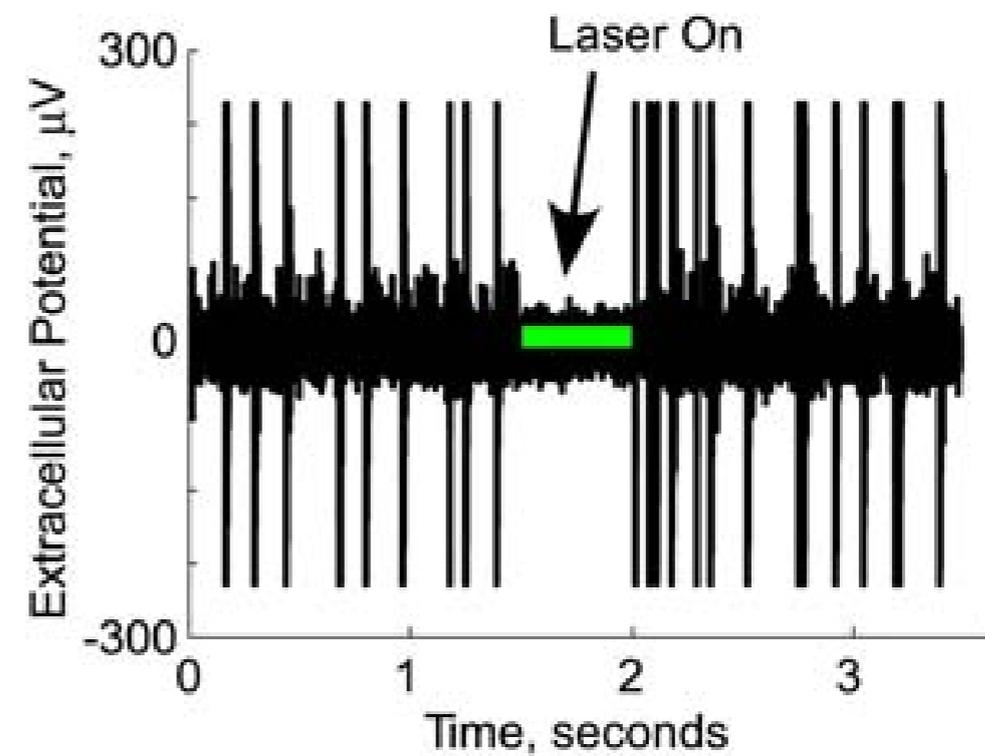
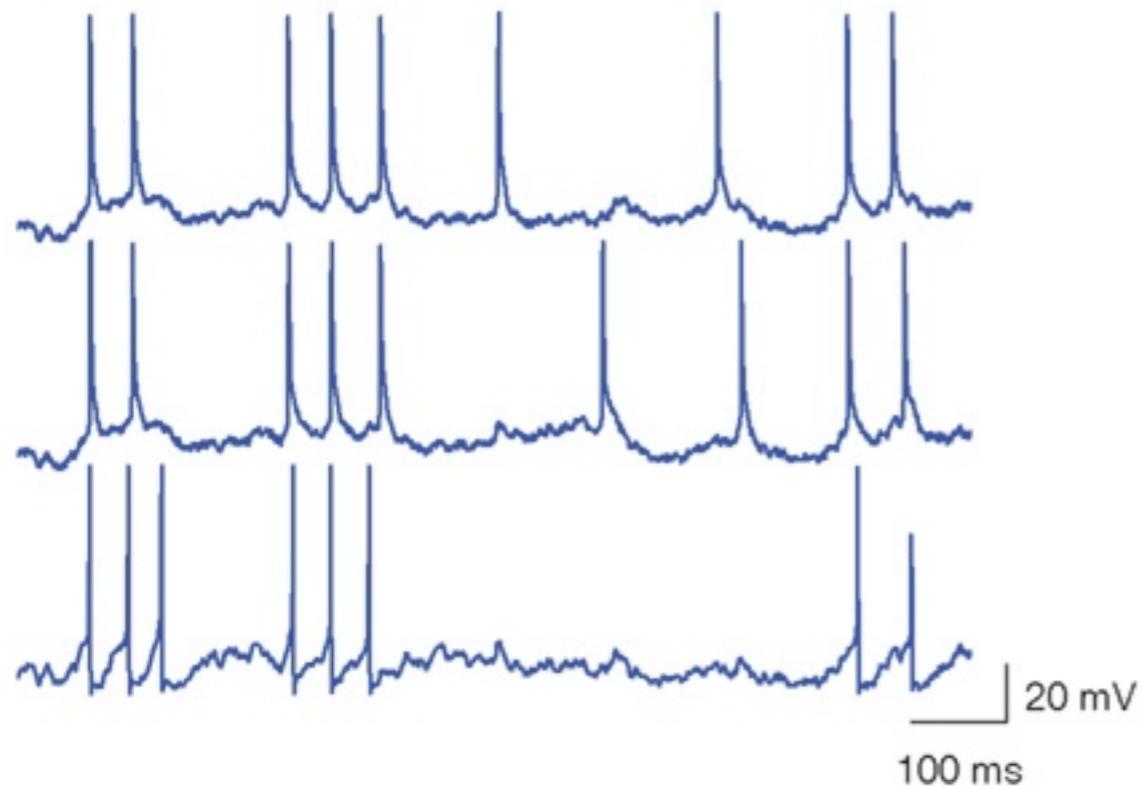
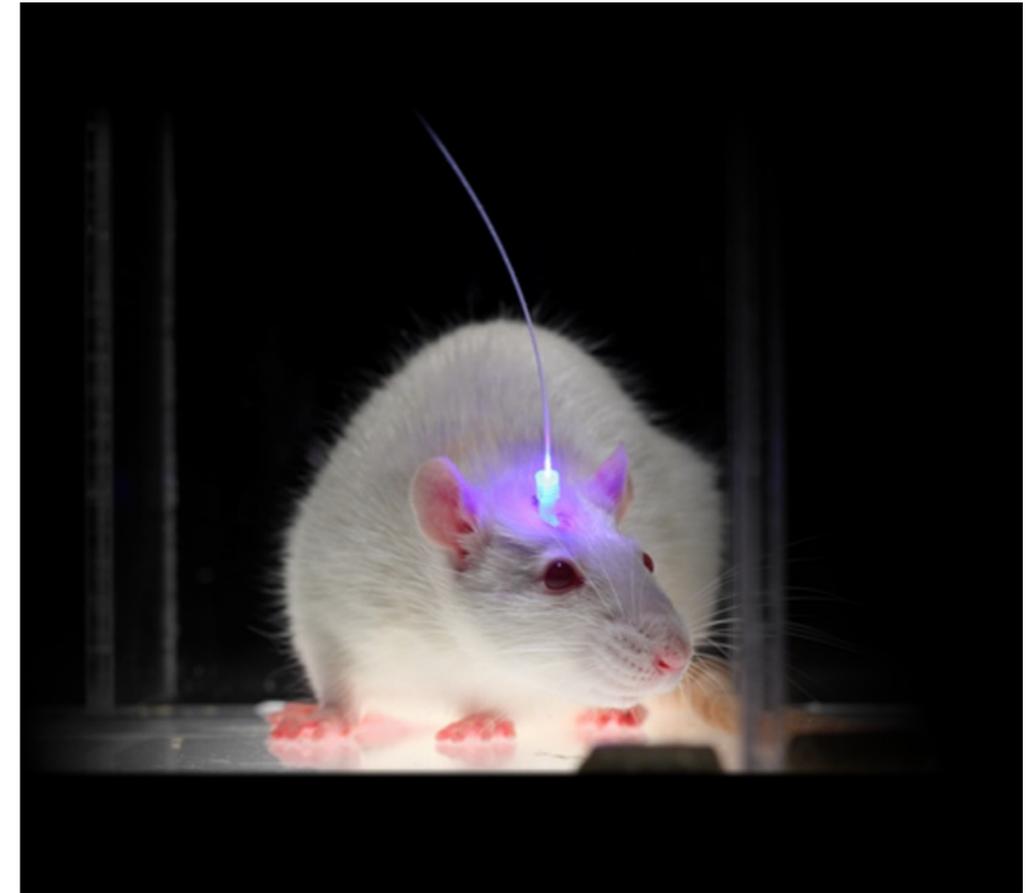
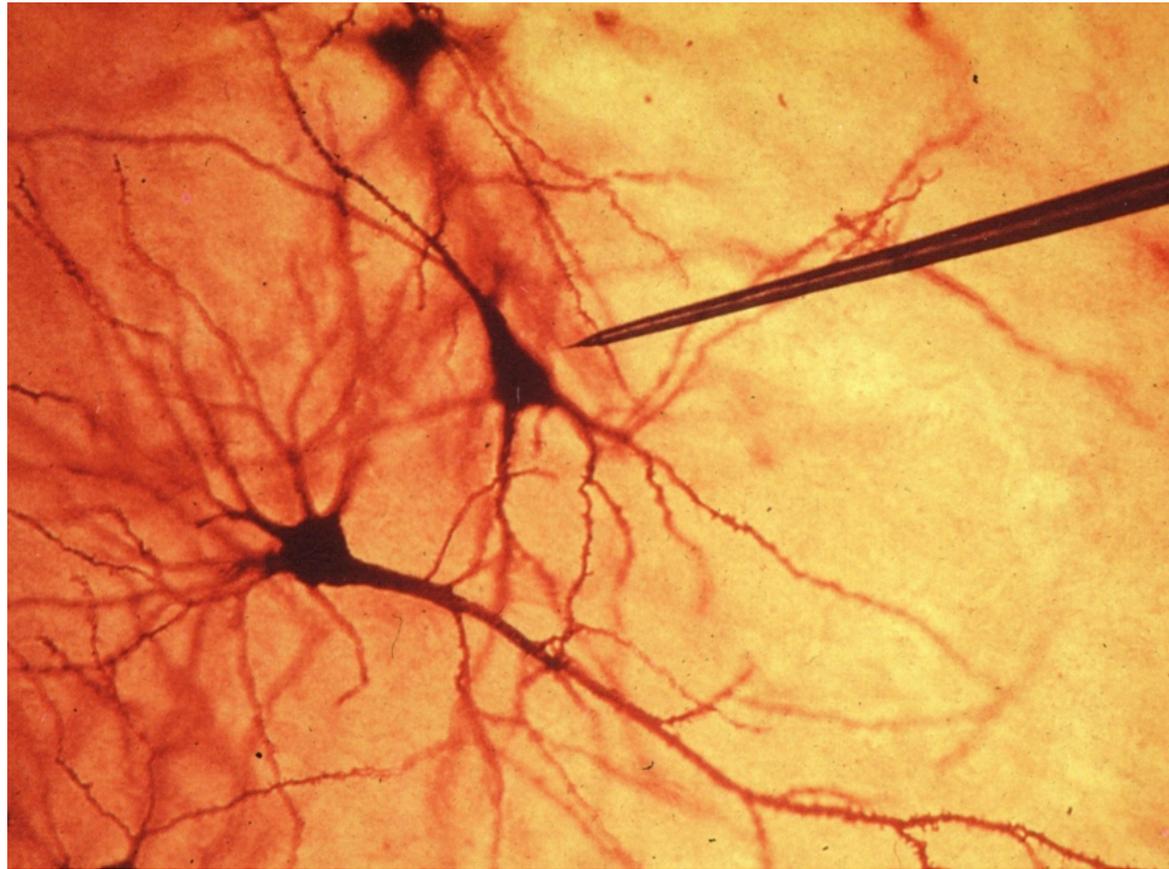
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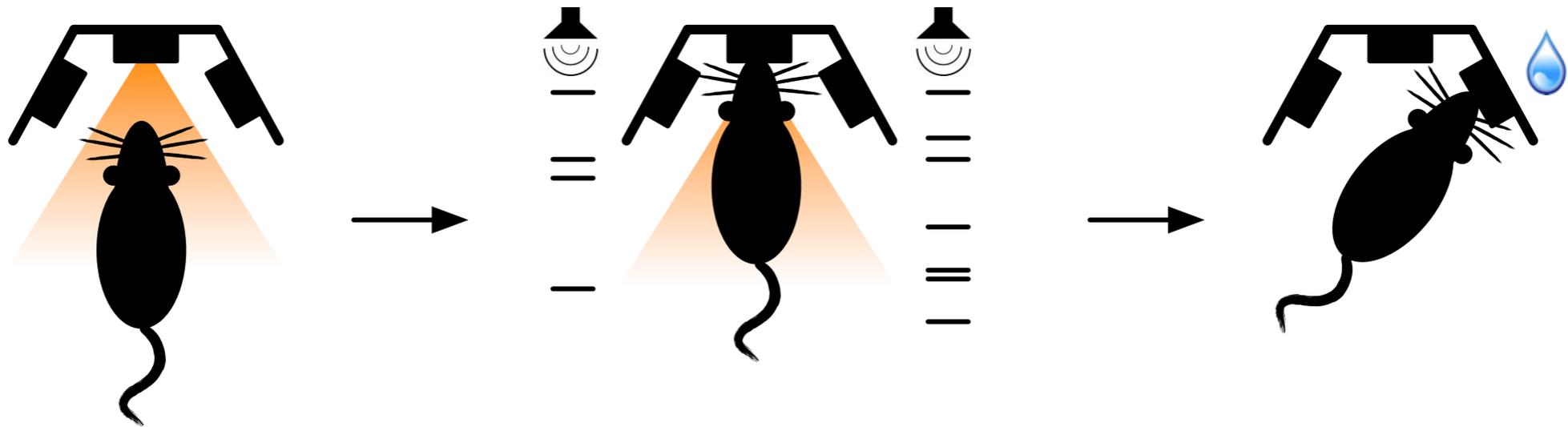
Experimental approach



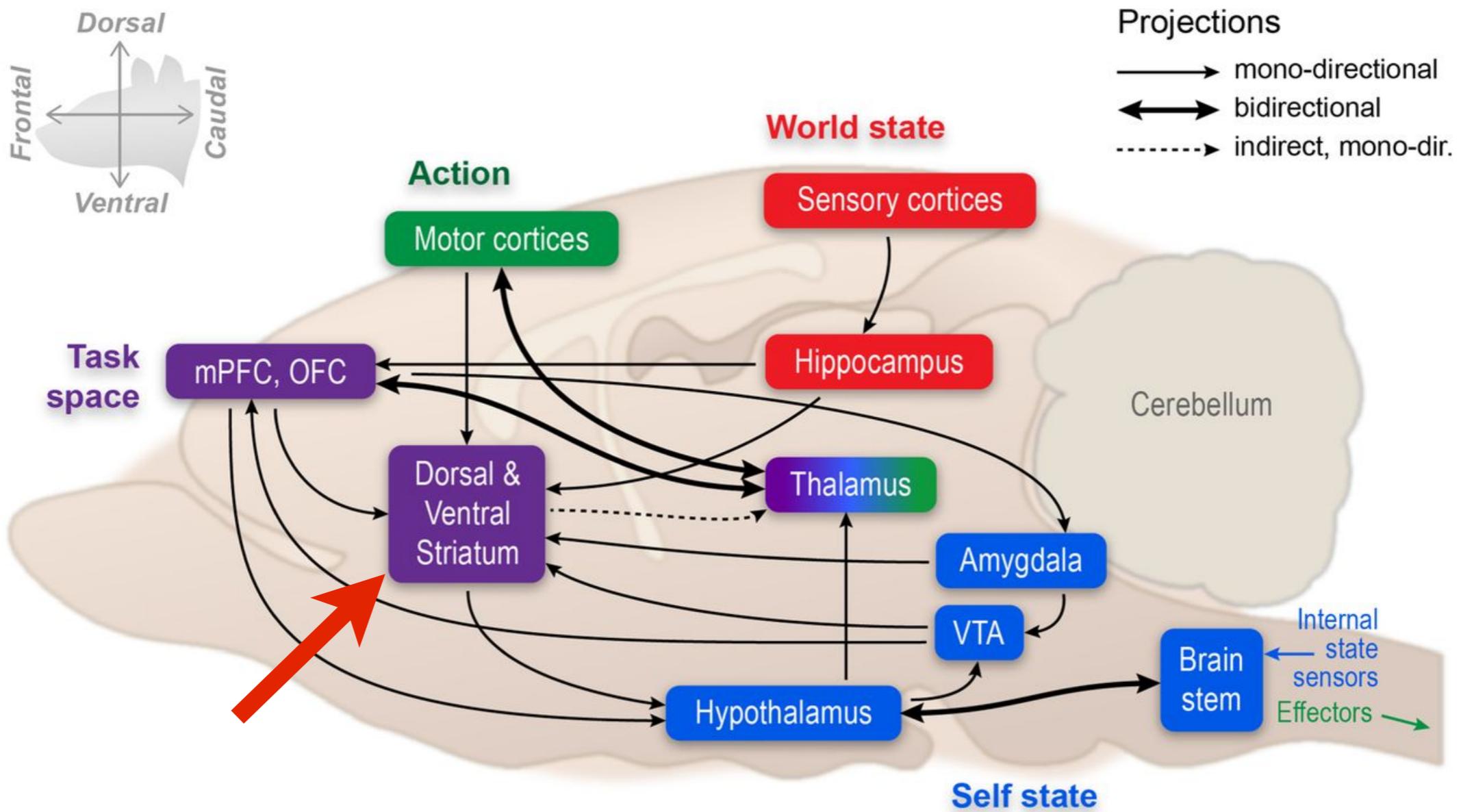
Experimental approach



Rat decision making task

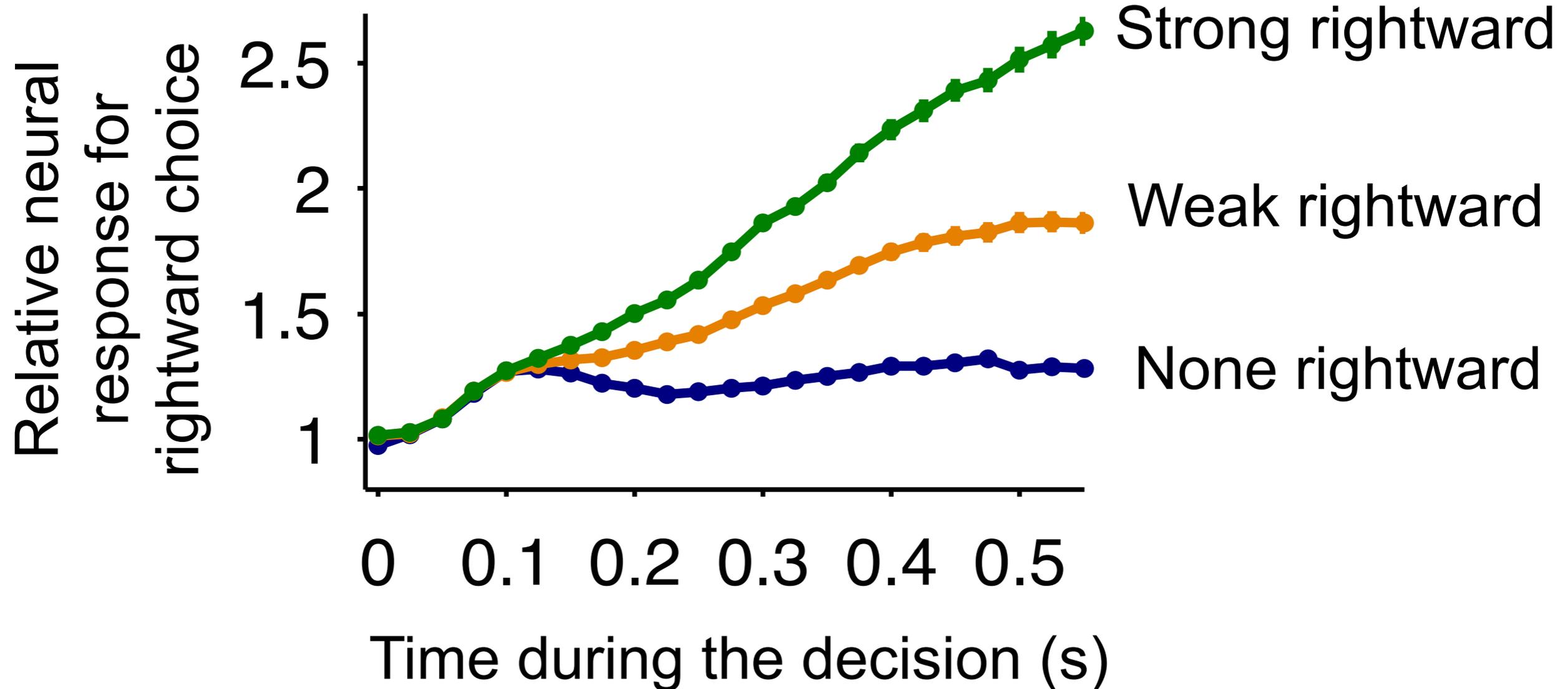


Brain networks for decision making

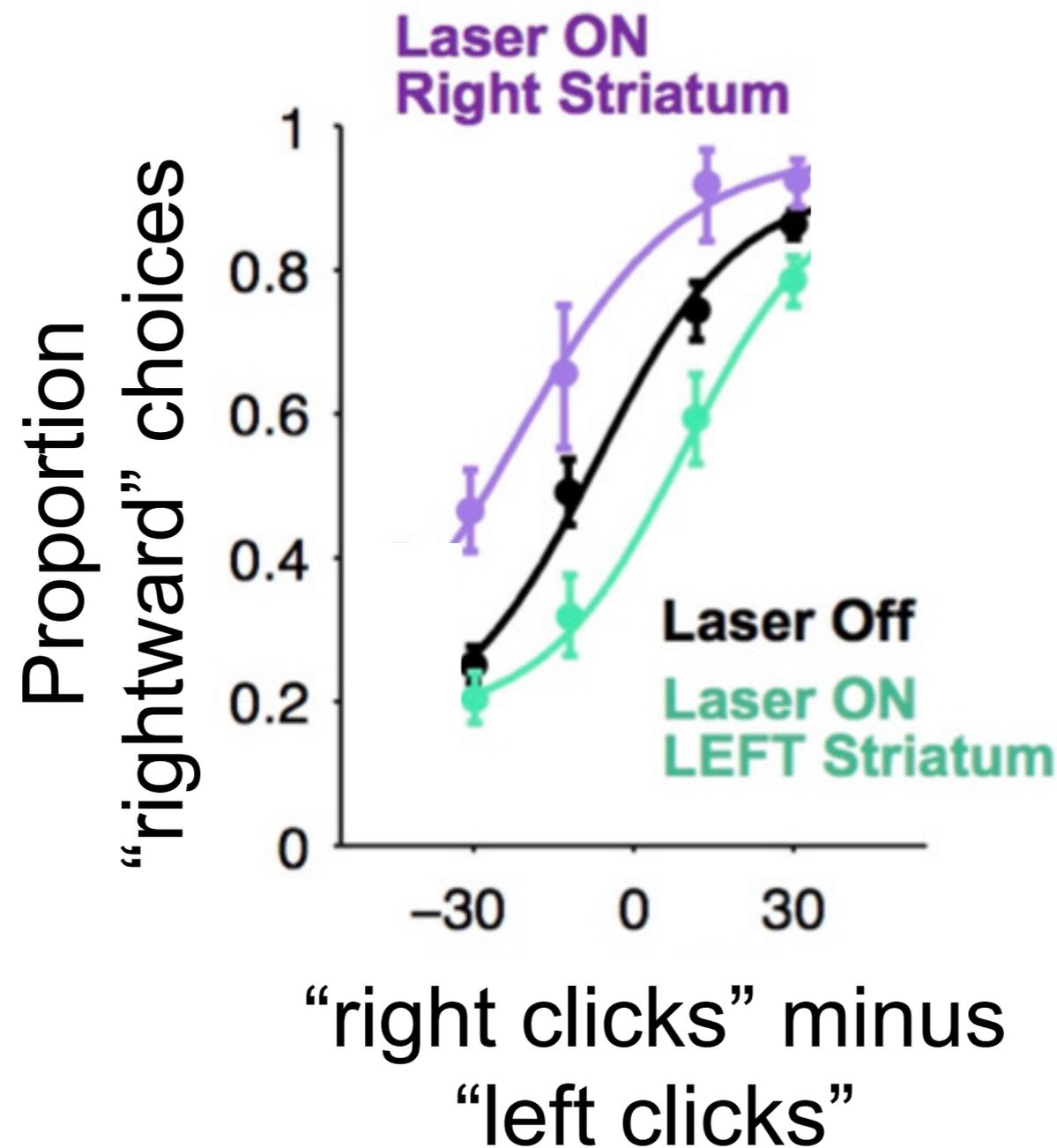


Neural responses supporting decisions

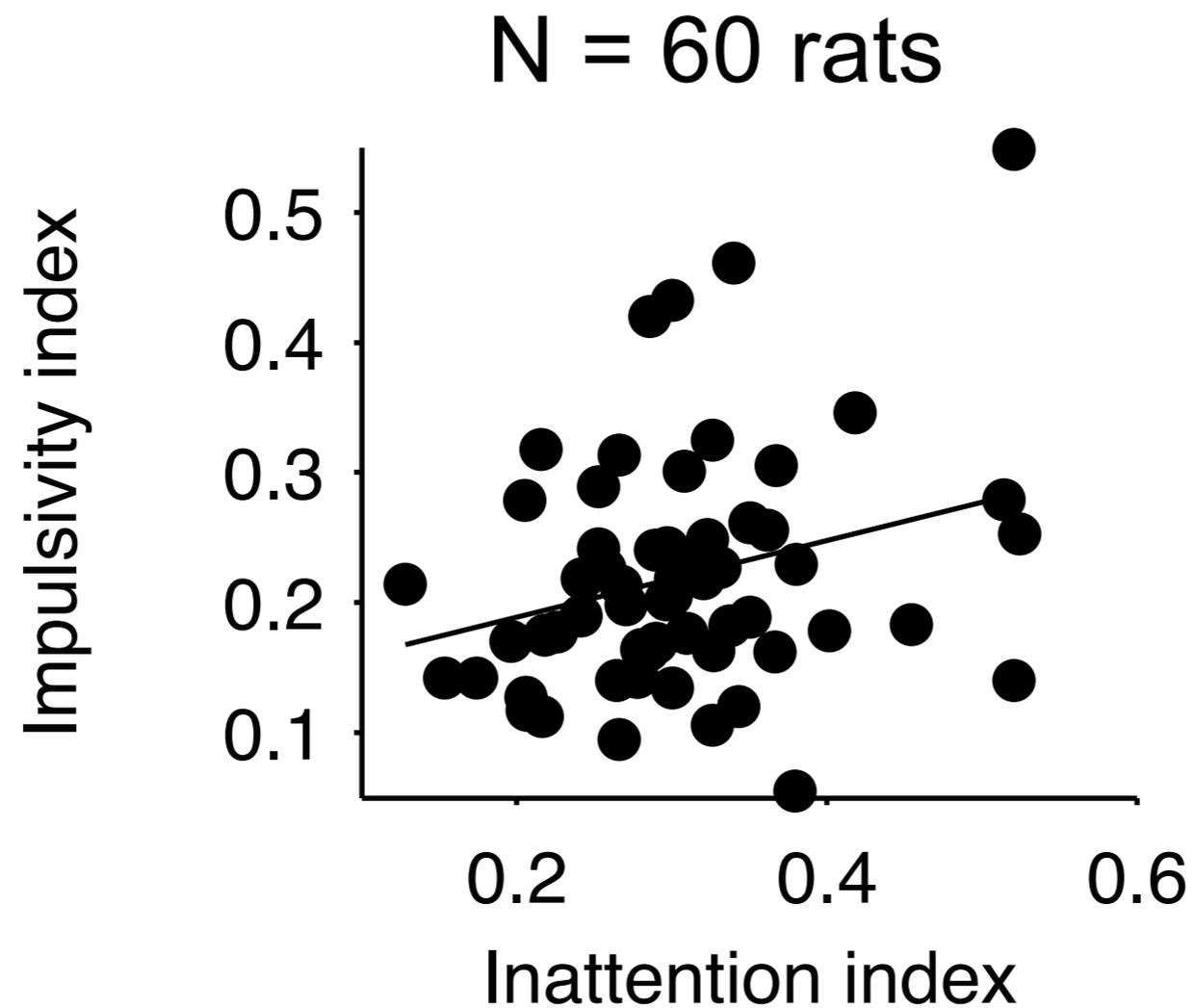
Sensory evidence



Influencing decisions by altering brain activity



Using rats to study attentional deficits



Hanks Lab



Christine Angeles
Preetham Ganupuru
Adam Goldring
Rashed Harun
Bridgette Johnson
Manying Sun
Sarah Zeigler