



Center for Academic Success and Achievement

Your home for
academic support
at UofM!



The Neurobiology of Learning

Center for Academic Success and Achievement



Neuroplasticity in Action

What is it? Your brain's ability to rewire itself through practice!

Reinforcement strengthens neural pathways!

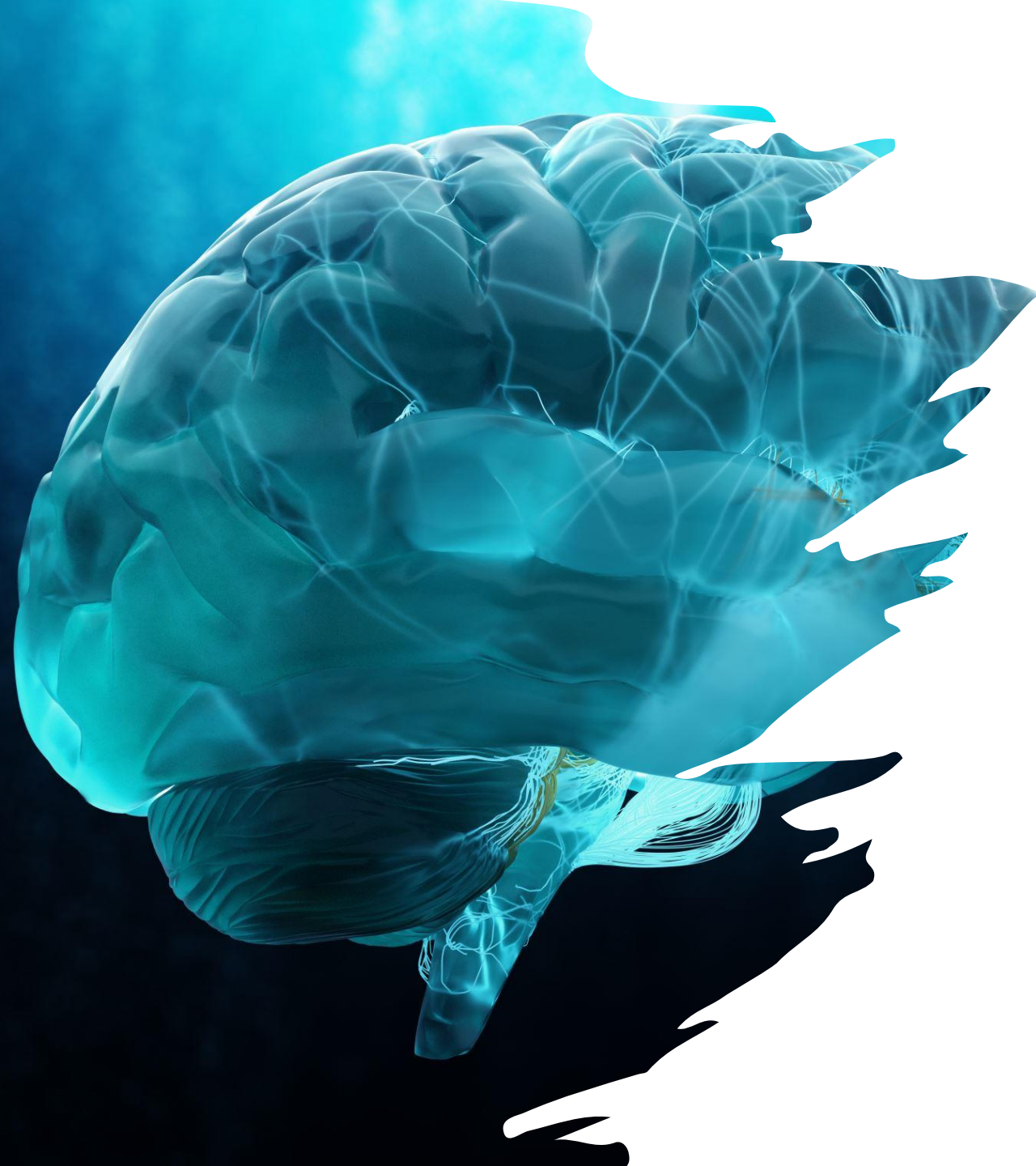
“Neurons that fire together, wire together!”





Chemical Formula for Learning

- Neurotransmitters can Boost or Block!
- Dopamine:
 - Released as you progress toward and reach a goal
 - Motivates and supports positive habits
- Acetylcholine:
 - Essential for attention and memory formation
- Cortisol:
 - Stress hormone that sharpens focus in small amounts but impairs when stress is chronic



From Input to Memory

- **Encoding:** Brain filters input for what matters
- **Storage:** Transition from short-term to long-term memory, especially during sleep
- **Retrieval:** Practicing recall, not just re-reading, constructs pathways for memory



Boost Your Brain!

Sleep is key as 7-9 hours is required for proper memory consolidation and attention span.

Exercise releases Brain-Derived Neurotrophic Factor which supports neuron growth and plasticity.

Resting to let your brain recharge enhances productivity and mood.



Reflection

I study best
when:

I feel most
focused
when:

One thing I
can do better
this week is:



Find Your Support. Find Your CASA. Engage with Us!



Want to learn more or connect with our team?
Scan the QR code to explore CASA services, meet our staff, book an appointment, and stay updated on resources that support your success!



Follow us on Instagram @casa_uofm
General inquiries: Casa@memphis.edu

