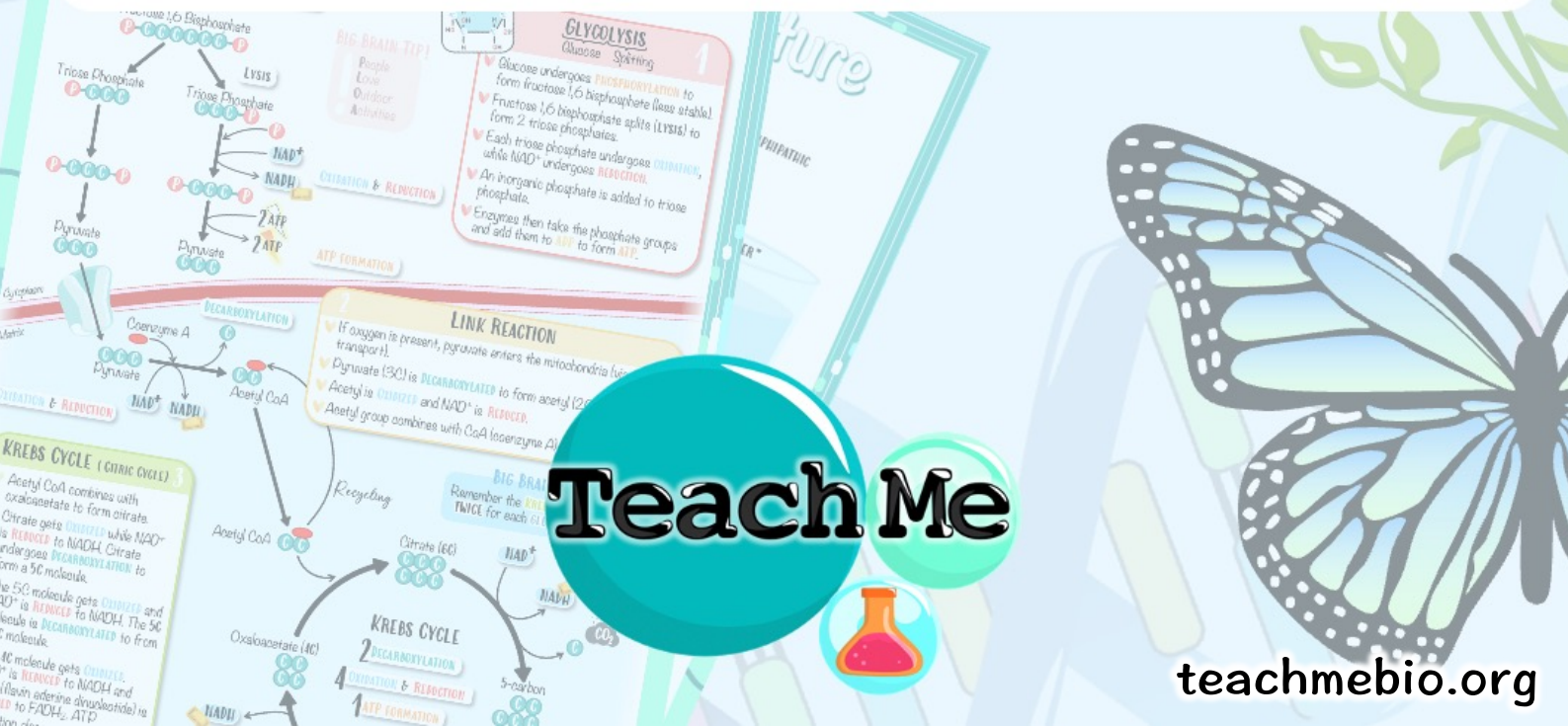


TeachMe

STUDY NOTES

C3.1 BRAIN & INTEGRATION

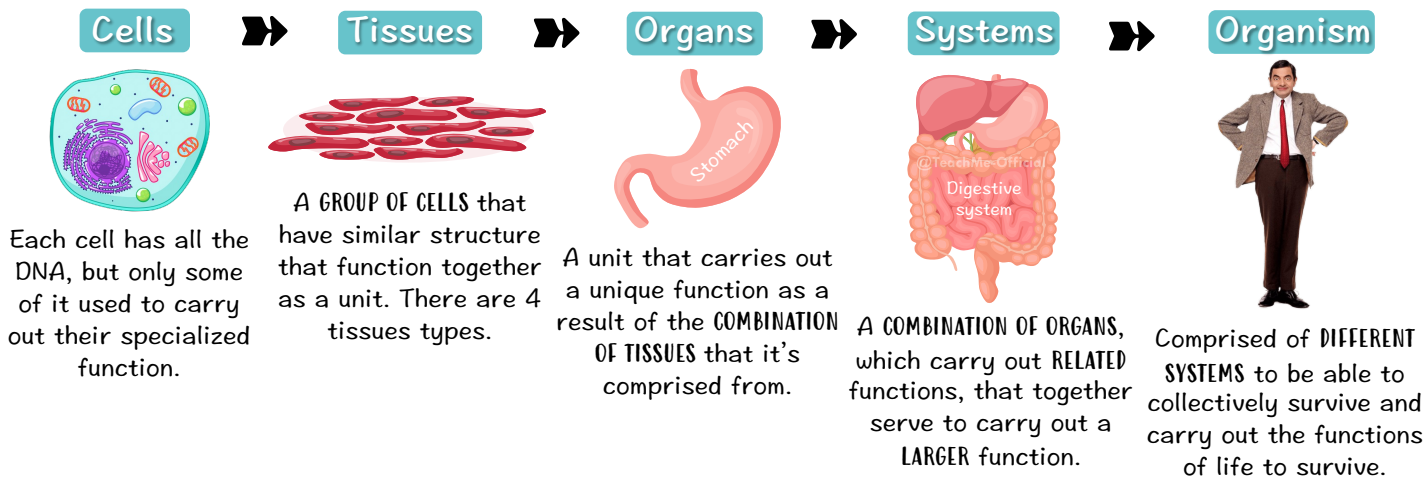


Brain & Integration

Contents

I THE NERVOUS SYSTEM → II CONTROL OF THE HEART & LUNG → III CONTROL OF THE ALIMENTARY TRACT → IV CONTROL BY HORMONES

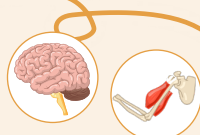
LEVELS OF AN ORGANISM



EMERGENT PROPERTIES

Those that exist when the sum of all the parts creates features that do not exist within the individual components.

"Muscle can't move without the brain"



Like a band!

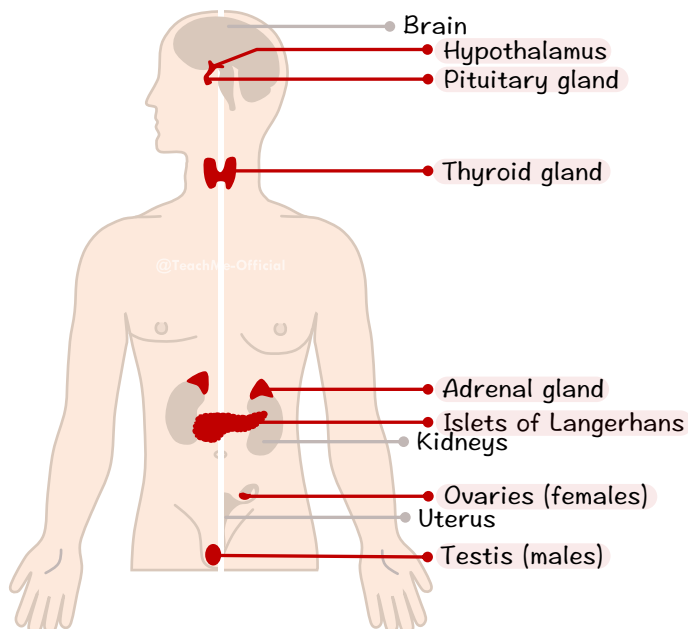
"All body systems work in unison. Requires appropriate COORDINATION."

COMMUNICATION & INTEGRATION

The body is controlled by two main systems: The **endocrine system** and the **nervous system**. The communication by these two systems can be **CONSCIOUS (AWARE)**. E.g., Moving your pinky. It can also be **UNCONSCIOUS (NOT AWARE)**. E.g., Digesting your food.

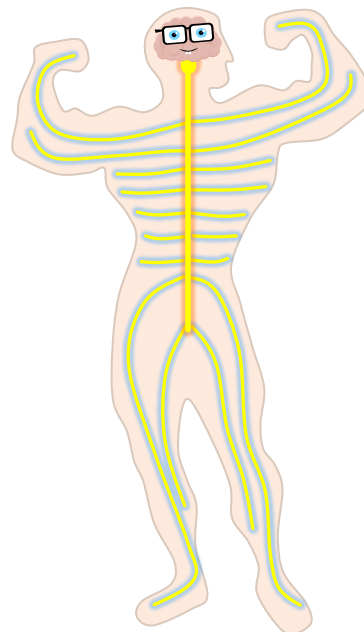
On PAGE 1 THE ENDOCRINE SYSTEM (Hormones)

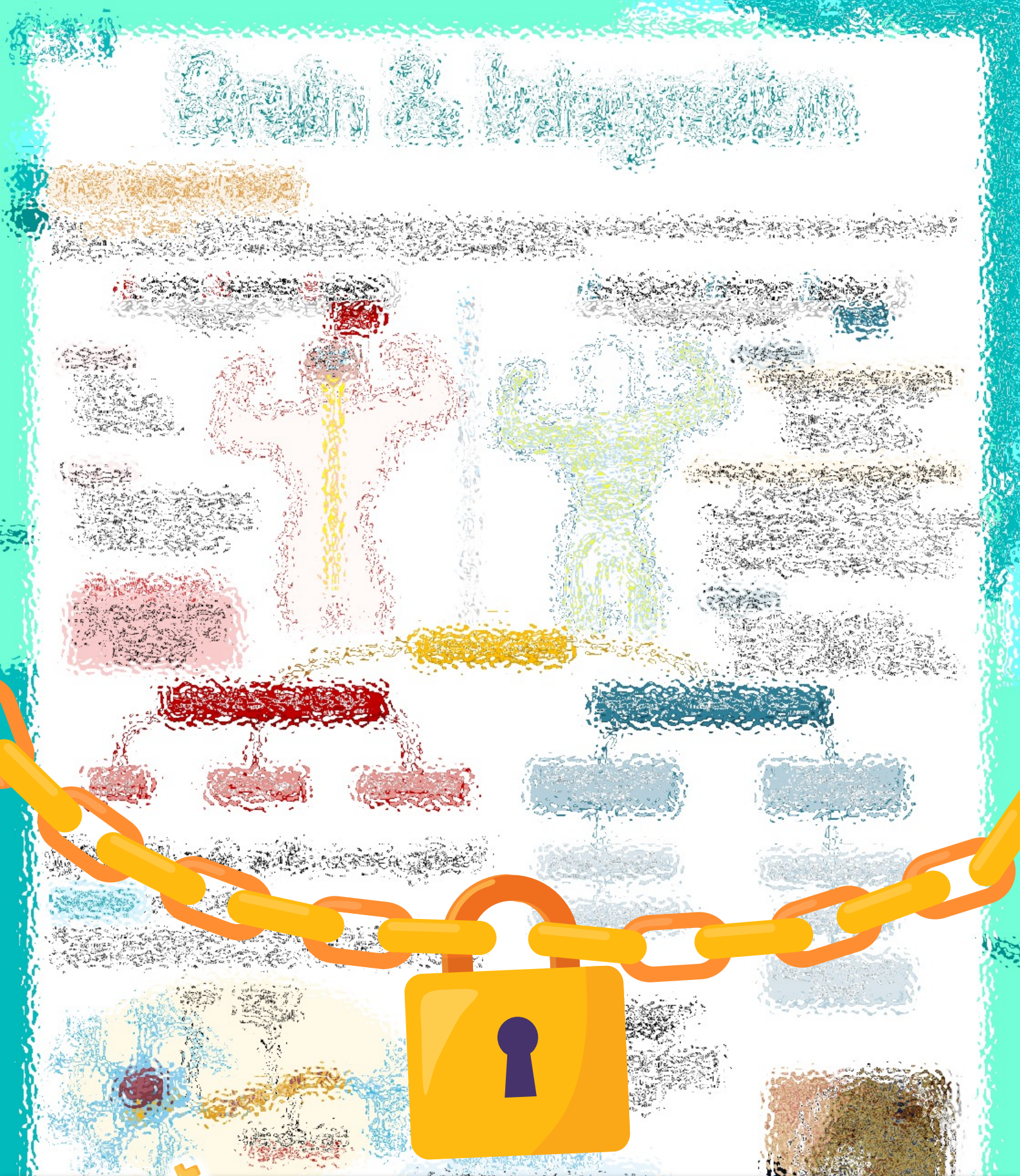
- ★ Endocrine glands (hormone secreting factories).
- ★ Travel through the **BLOODSTREAM** to target tissue.
- ★ Only **INVOLUNTARY** functions are controlled.
- ★ Responses are typically **SLOW** but are **LONG LASTING**.



On PAGE 2 THE NERVOUS SYSTEM (Electrical impulses)

- ★ CNS & PNS (Central & Peripheral Nervous System).
- ★ Send messages via **NEURONS**.
- ★ Control **VOLUNTARY OR INVOLUNTARY** actions.
- ★ Responses occur **QUICKLY** but are **SHORT LIVED**.





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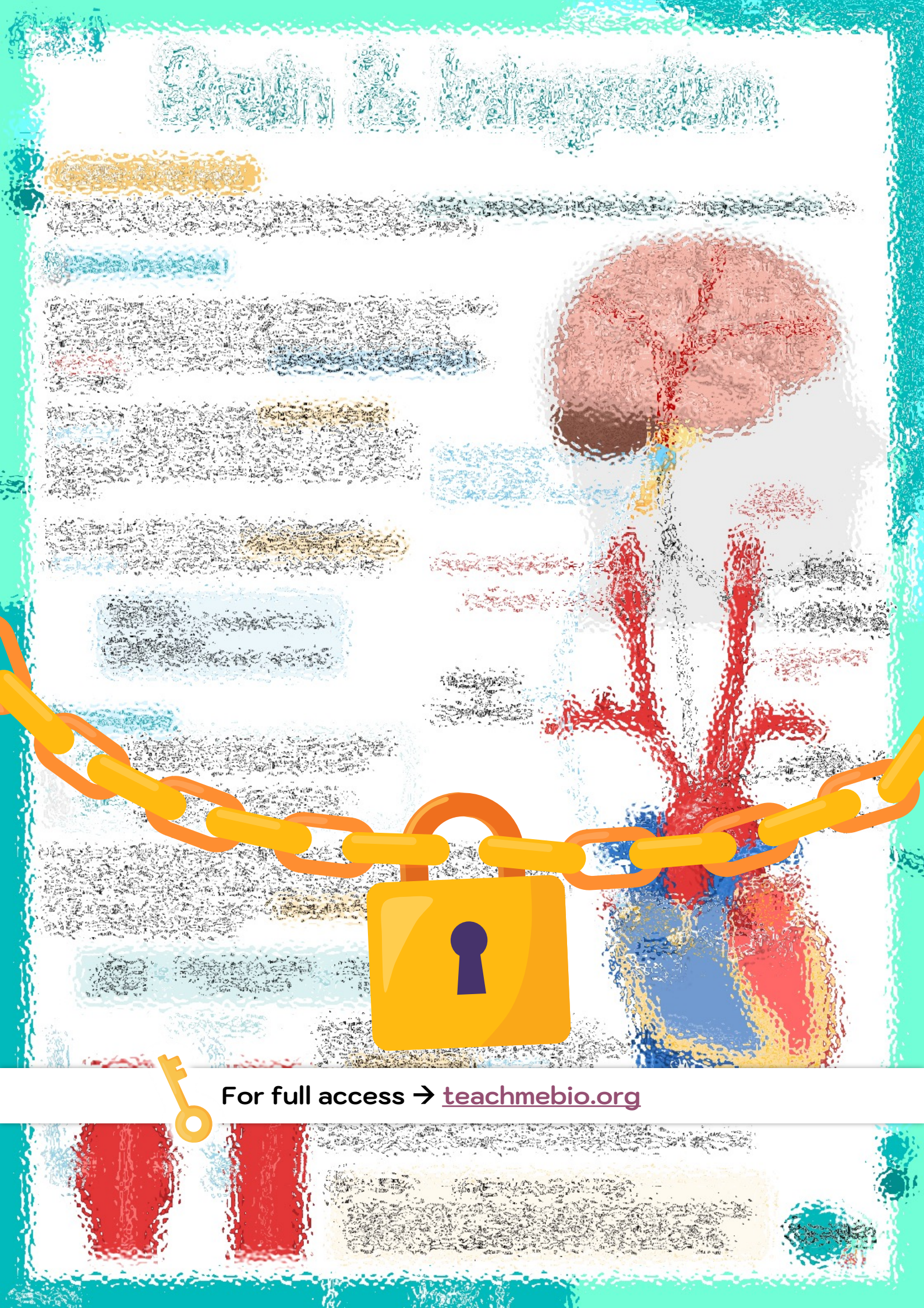
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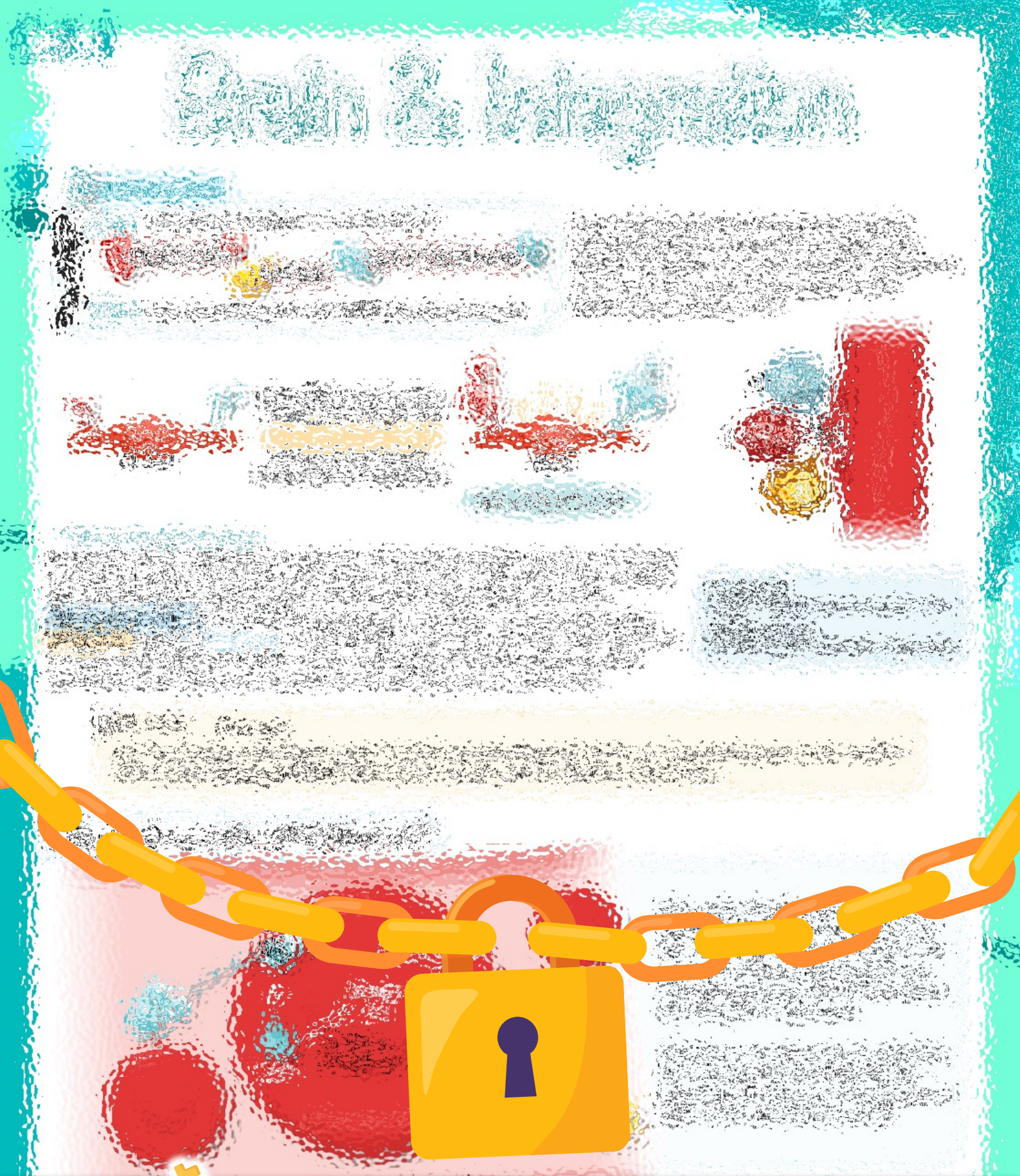
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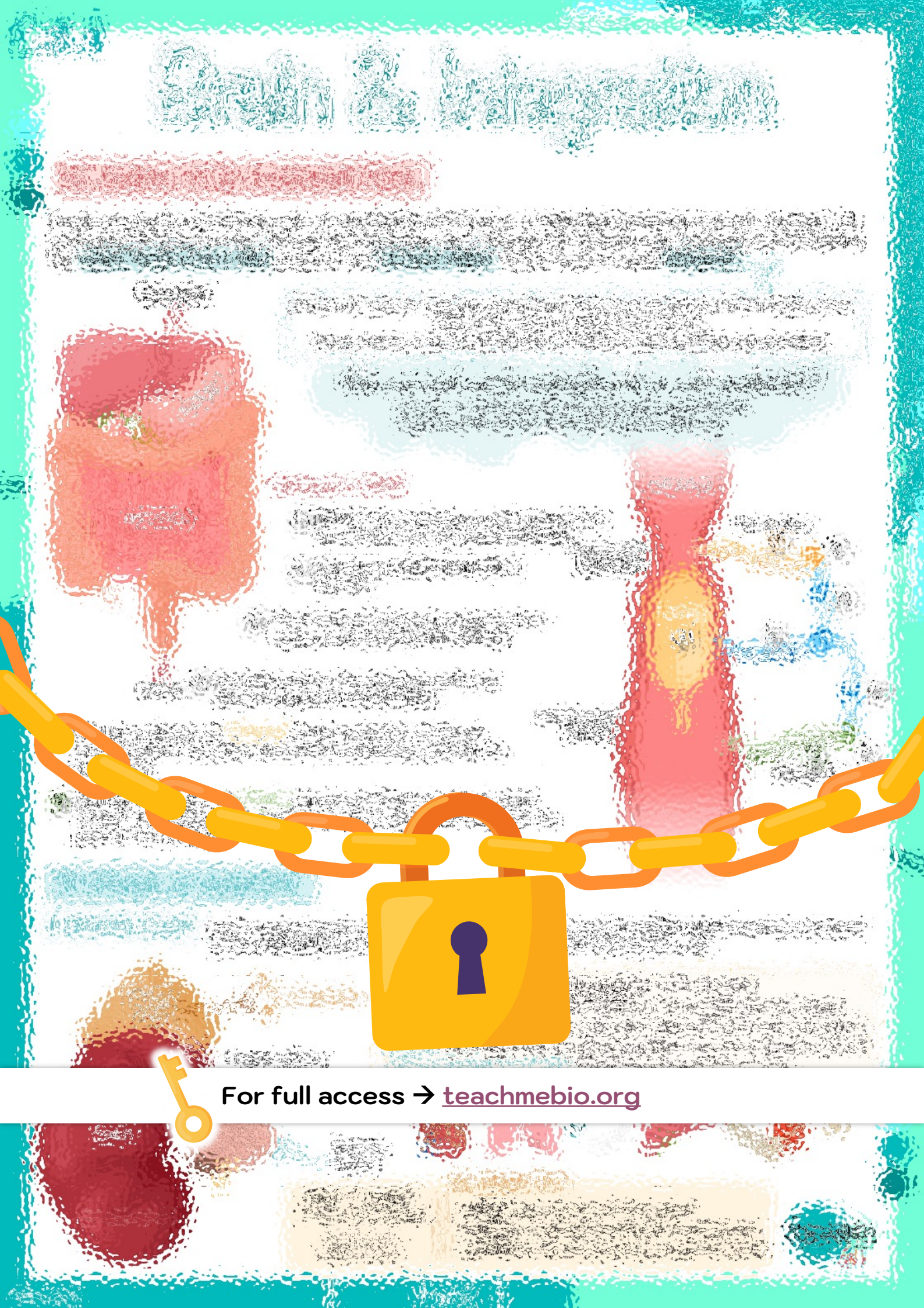
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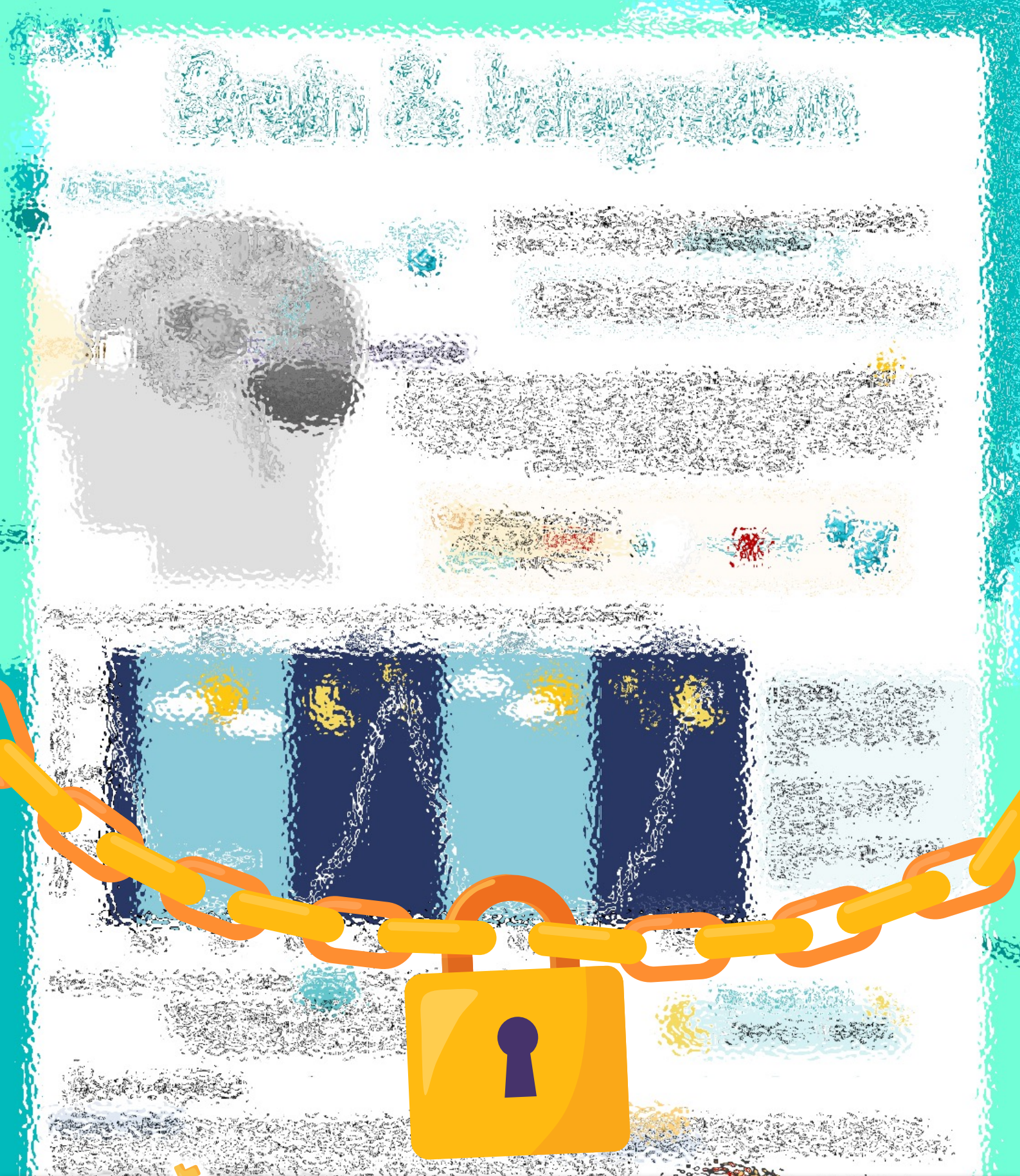
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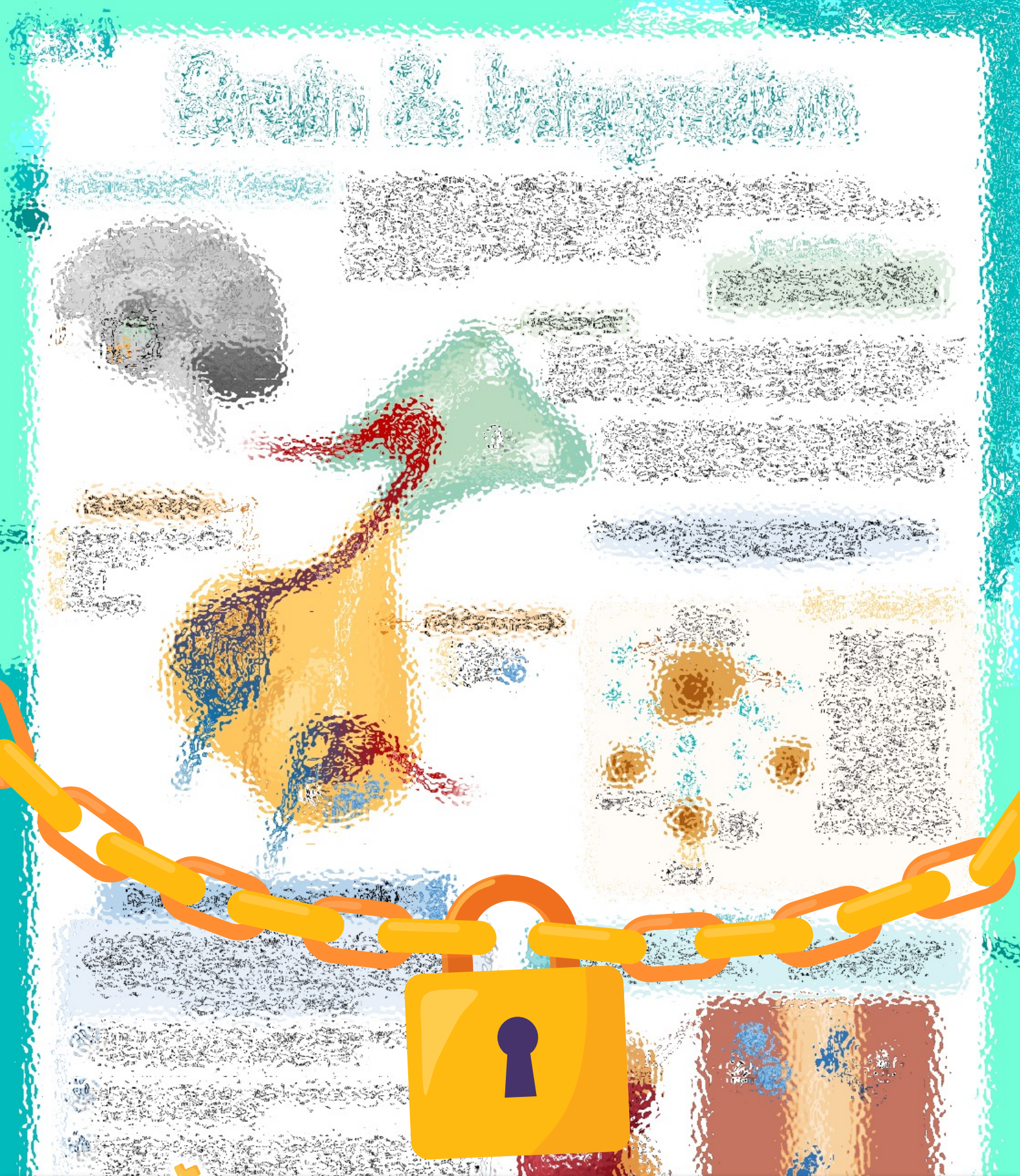
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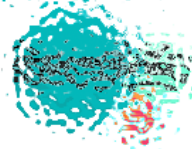
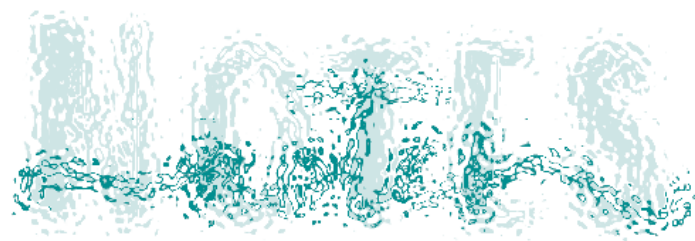
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