Anatomy and Network Activity of Tuberoinfundibular Dopamine (TIDA) Neurons

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About Me

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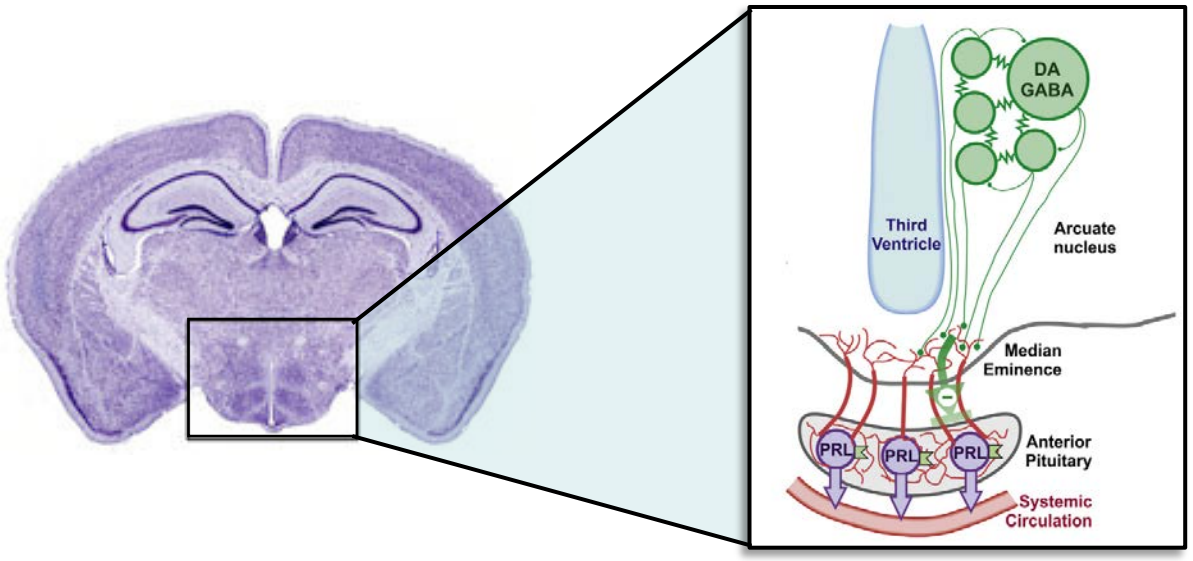
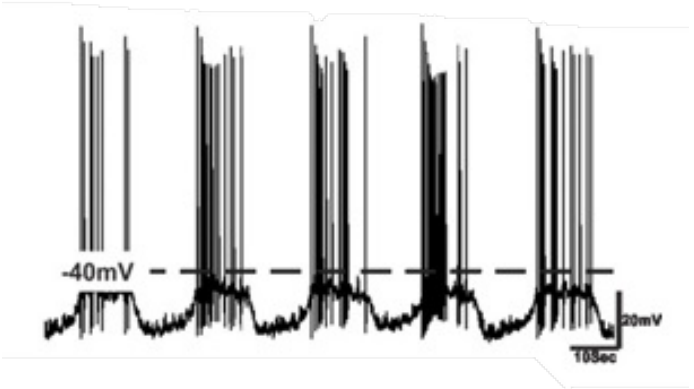
What are TIDA neurons?

- Located in the Arcuate Hypothalamic Nucleus (ARH)
- Regulate the inhibition of prolactin release



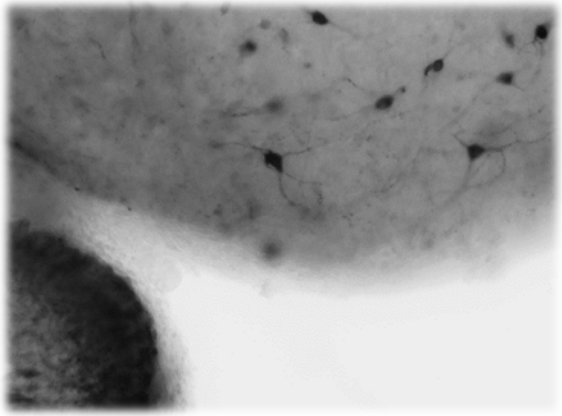
Methodology

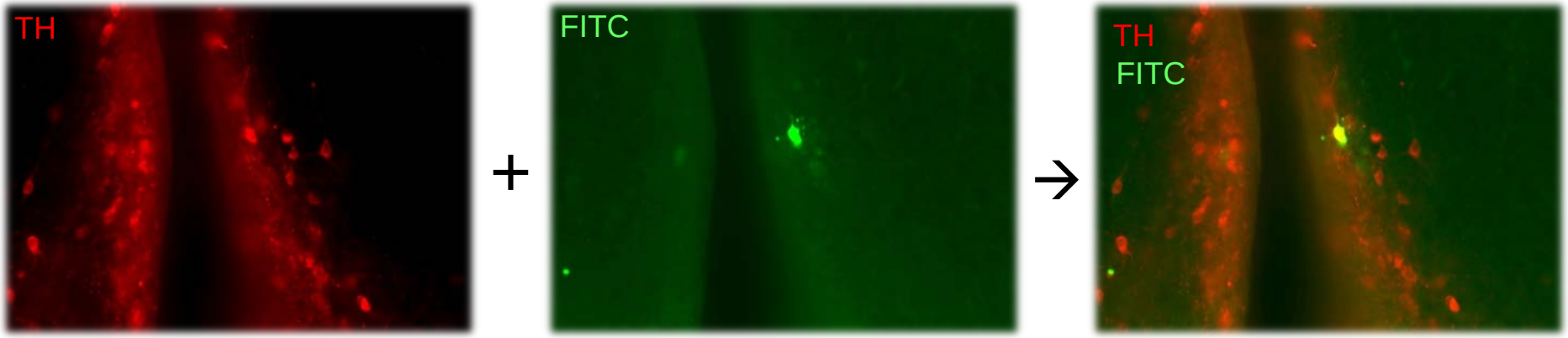
- Electrophysiology
  - Very distinct oscillating current
- Live Animals
  - Colchicine injections



Methodology

- Immunohistochemistry
  - Antibodies with fluorescent markers
  - Benzene derivatives





Why is this important?

- While we may be doing basic research…
  - Prolactin release/inhibition pathway
    - Side effect of SSRI drugs
  - Dopaminergic neurons not affected by Parkinson's Disease

Acknowledgments

- Arash Hellysaz
- Stefanos Stagkourakis

- Dr. Christian Broberger, MD, PhD

References

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- Lyons, D.J., Broberger, C. TIDAL WAVES: Network mechanisms in the neuroendocrine control of prolactin release. Front. Neuroendocrinol. (2014), http://dx.doi.org/10.1016/j.yfrne.2014.02.001

Thank you!

Questions?