IMMUNOHISTOCHEMICAL DETERMINATION OF INNERVATION OF OREXIGENIC AND ANOREXIGENIC PEPTIDES ON GNRH AND KISSPEPTIN NEURONS AT THE CONFOCAL MICROSCOPE LEVEL

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- ✓ GnRH
- ✓ Kisspeptin
- ✓ Nesfatin-1
- ✓ Orexin-A
- ✓ MCH
- ✓ Phoenixin

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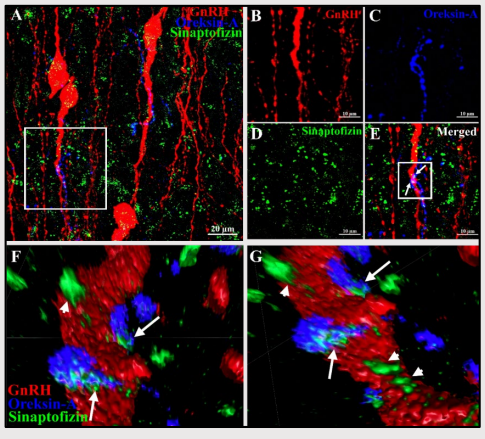

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THESIS ABSTRACT

This study was conducted to investigate the presence of innervation of GnRH and kisspeptin neurons, which are involved in reproductive function in the central nervous system, by axons of neurons belonging to the anorexigenic and orexigenic peptidergic systems associated with energy metabolism, and to determine whether this relationship represents a direct synaptic innervation. For this purpose, rats were divided into three groups: intact proestrus females, ovariectomized females, and males. Brain tissue sections obtained from these animals were analyzed using the indirect immunofluorescence labeling method under a laser scanning confocal microscope.

APPLICATION AREAS OF THE THESIS RESULTS

The present study was a pioneering investigation aimed at exploring the presence of histomorphological structures suggesting that nutrition-related signals may regulate the reproductive system at the neuroendocrine level through neuronal synaptic signaling.

ACADEMIC ACTIVITIES

1. Agayeva, S., **Durdu, T. Y.**, Çakır, C., Aslan, M. K., Kasapoğlu, I., & Gök Yurtseven, D., (2026). Effects of Cumulus Cell Extracellular Matrix–Assisted Sperm Preparation Protocols on In Vitro Sperm Quality. Uludağ Üniversitesi Tıp Fakültesi Dergisi, vol.52.
2. **Durdu, T. Y.**, Topal, G., Arıcan, B., Halk, K. Z., Gök Yurtseven, D., Minbay, F. Z., Eyigör, Ö.(2024). IMMUNOHISTOCHEMICAL DEMONSTRATION OF GLUTAMATE AND GABA RECEPTORS IN OREXIN-A NEURONS. NICHE2024; 16th National and 2nd International Congress of Histology and Embryology (pp.147). Sakarya, Türkiye.