# TÉTELES SZERZŐI HOZZÁJÁRULÁS

Alulírott **Somogyi Fanni** nyilatkozom, hogy a 37. OTDK-ra benyújtott Long-term, stable, functional and non-invasive labeling across the brain of a preclinical animal model című pályamunkámban leírtak esetében az alábbi munkafolyamatok elvégzésében vettem részt:

| **Részfeladat** | **A részvétel mértéke** |
|---|---|
| Literature review of the relevant topics | 5 |
| Designing the surgeries and experiments for optimal viral screening in cats and rats | 4 |
| Intrathecal and intravenous viral delivery procedures performed on cats[1] | 3 |
| 3D-printed chamber implantation, craniotomy formation on the skull and intracortical injections performed on cats[1] | 3 |
| Optical imaging to test functional protein expression performed on cats[2] | 4 |
| Tissue processing (sectioning, freezing) of cats[3] | 4 |
| 3D-printed chamber implantation, craniotomy formation on the skull and intracortical injection performed on rats[4] | 5 |
| Optical imaging with visual or somatosensory stimulation to test functional protein expression in rats[5] | 4 |
| Optical imaging combined with optogenetic stimulation (all-optical) to modulate brain activity in rats[5] | 4 |
| Analysis of the functional measurements[5] | 4 |
| Tissue processing (sectioning, freezing) of rats[6] | 5 |
| Expression pattern analysis (immunohistochemical staining, microscopic scanning, cell counting) on cat and rat samples[7] | 5 |

**Kelt:** Budapest, 2025.01.15.

Pályamunkát benyújtó hallgató (Somogyi Fanni)
aláírása

A nyilatkozatban foglaltak helyességét megerősítem:

Témavezető (Hillier Dániel, PPKE ITK)
aláírása

Magyarázat:

1.The sterile surgeries were performed by authorized members of the TTK "Lendület" Vision Systems Neurobiology Research Group with extensive surgical experience, under veterinary supervision. The student assisted as a sterile surgical assistant during the procedures.

2.The student conducted functional measurements jointly with other members of the research group.

3.The student carried out tissue processing collaboratively with the research team and assistants, as processing one-third of a cat brain requires 4 people working for 3 days.

4.The student independently designed and executed all steps of the surgical procedures performed on rats.

5.The student learned to use the experimental setup for functional measurements on rats, reviewed the literature on the parameters to be tested, and performed the experiments and data analysis with another team member.

6.The student conducted tissue processing for rat samples entirely independently and optimized the procedures on their own.

7.The student independently planned and performed immunohistochemical staining based on the research questions, including scanning and comprehensive evaluation of the results.