**Personal information**



Surname/First name: Horváth Réka

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Nationality: Hungarian

Sex: Female

Date of birth (dd/mm/yyyy): 04/05/1989

**Education**

Dates ***01/09/2014 – current***

***PhD student***

Doctoral School of Biology, University of Pécs (Pécs, Hungary)

Dates ***01/09/2012 - 01/07/2014***

***Master degree in physology and neuroscience***

***(TTIK-00805/2014/OKL)***

University of Szeged (Szeged, Hungary)

Dates ***01/09/2008 – 01/07/2012***

***Bachelor degree in biology***

***(TTIK-00592/2012/OKL)***

University of Szeged (Szeged, Hungary)

**Qualifications**

Date of certificate: *09/04/2019*

***Project manager***

***(PRMELA/2019-4)***

*EFEB (Budapest, Hungary)*

Date of certificate: *08/01/2019*

***Proposal writer***

***(EUPELA/2019-2)***

*EFEB (Budapest, Hungary)*

Date of certificate: *04/06/2018*

***Manager of small- and medium-sized companies***

***(153402/4/2018)***

*Veszprémi Szakképzési Centrum (Veszprém, Hungary)*

**Personal skills and competences**

Mother tongue Hungarian

Other language(s) ***German (B2) complex***

***Certificate nr.: 906990***

Date: 16/05/2007

***English (C1) written***

***Certificate nr.: 1926538***

Date: 18/11/2017

Computer skills and competences MS Office (Word, Excel, Power Point)

Pupillator 5.3

GraphPad

Quick Basic

Image J

LasX

Social skills During my studies and scientific work, I had a pleasure to work with doctors and physicists so I experienced what it means to be a member of a highly-qualified multidisciplinar team. Based on my co-workers and supervisors opinion, I am a precise, conscientious, creative person with good problem-solving skills.

**Scientific field and acquired skills**

**Since 2014** SeptemberI have been working at Balaton Limnological Institute, Department of Experimental Zoology as assistant research fellow (PhD student). I am interested in the organization and function of the invertebrate nervous system, especially, the aquatic pulmonate, *Lymnaea stagnalis*.

Actually, I am dealing with examination of the structure and function of the peripheral (chemo- and mechano)sensory systems of *L. stagnalis* using confocal microscopic immunohistochemical methods. My future goal is to make further correlative light- and electron microscopic IHC, and pharmacological experiments coupled with different chemical cues within this topic.

***Techniques learned:*** Tissue preparation, cryostat and ultra-thin sectioning, western blotting, immunohistochemistry, fluorescent microscopy, confocal laser scanning microscopy, electron microscopy

***Place of research/work***: Balaton Limnological Institute

Centre for Ecological Research, Hungarian Academy of Sciences

Department of Experimental Zoology (Tihany, Hungary)

**2013-2014**: I worked on small intestinal ischaemic-reperfusion models in rats. I was looking for a better way to categorize the injuries of intestinal mucosa caused by ischaemia-reperfusion and a faster, more reliable diagnostic method than conventional histological sampling.

***Techniques learned:*** Ischaemia-reperfusion modelling, light microscopy, histological sampling by confocal laser endomicroscopy and evaluation of optical sections

***Thesis topic (MSc):*** Application/use of confocal scanning endomicroscopy in the diagnostic of mesenteric ischaemia

***Place of research/work:*** University of Szeged, Faculty of Medicine

Institute of Experimental Surgery (Szeged, Hungary)

**2011-2013:** I applied infrared video-pupillometry on humans, later cognitive neuroscientific tests were carried out to increase vigilance using this method.

***Techniques learned:*** Infrared video-pupillometry

***Thesis topic (BSc):*** Objective testing of vigilance enhancing based on loud reading by means of infrared video-pupillometry

***Place of research/work:*** Biological Research Centre, Hungarian Academy of Sciences

Institute of Biophysics (Szeged, Hungary)

**Posters and publications:**

Posters:

Izabella Battonyai, **Réka Horváth**, Zsuzsanna N. Fekete, Károly Elekes: Aminergic (5-HT) and peptidergic (FMRFamide) innervation of the foot and byssus retractor muscle of Dreissena. ISIN Symposium, 08. 26-31. 2015, Tihany (Hungary)

**Réka Horváth**, Izabella Battonyai, Zsuzsanna N. Fekete, Károly Elekes: Signal molecules in the senso-efferent system of the pond snail. IBRO Workshop, 01. 21-22. 2016, Budapest (Hungary)

Izabella Battonyai, **Réka** **Horváth**., Károly Elekes: Signal molecules involved in the innervation of the byssus retractor muscle and foot of the zebra mussel. IBRO 2016 Workshop, 01. 21-22. 2016, Budapest (Hungary)

**Réka Horváth**, Izabella Battonyai, Károly Elekes: Organization of senso-efferent systems in the pond snail (*Lymnaea stagnalis*). XI. East European Conference of the ISIN, 05. 15-19. 2016, Moscow-Zvenigorod.

Zita Zrínyi, Gábor Maász, **Réka Horváth**, Zsolt Pirger: Effect of contraceptive residues at central and peripheral levels of the snail (*Lymnaea stagnalis*) reproductive system. SfN 2016, 11. 12-16. 2016, San Diego.

***Horváth R***., Battonyai I., Elekes K.: Senso-motor interactions in different peripheral organs of the pond snail, *Lymnaea stagnalis*. A chemical-neuroanatomical approach. 4th International Congress on Invertebrate Morphology, 08. 18-23. 2017, Moscow.

Battonyai I., ***Horváth R***., N. Fekete Zs., Elekes K.: Immunohistochemical visualization of neurotransmitters in the biofouling zebra mussel byssal system. 4th International Congress on Invertebrate Morphology, 08. 18-23. 2017, Moscow.

***Horváth R***., Battonyai I., Elekes K.: Morphological basis of possible senso-motor interactions in the periphery of the pond snail, *Lymnaea stagnalis L*. FENS Regional Meeting, 09. 20-23. 2017, Pécs (Hungary).

***Horváth R.***, Battonyai I., Elekes K.: Distribution and seasonal variation of synaptic proteins in the central nervous system of a model invertebrate, *Lymnaea stagnalis L.* 11th FENS Forum of Neuroscience, 07. 07-11. 2018, Berlin.

Publications:

I. Battonyai, E. E. Voronezhskaya, A. Obukhova, **R. Horváth**, Leonid P. Nezlin, and K. Elekes: Neuronal Development in the Larvae of the Invasive Biofouler Dreissena polymorpha (Mollusca: Bivalvia), with Special Attention to Sensory Elements and Swimming Behavior. Biological Bulletin 234: 192–206. (2018)

K. Elekes, L. Hiripi, G. Balog, G. Máasz, I. Battonyai, M. Y. Khabarova, **R.** **Horváth,** E. E. Voronezhskaya: Serotonergic regulation of the buccal (feeding) rhythm of the pond snail *Lymnaea stagnalis*. Acta Biologica Hungarica 69 (3), pp. 225–243 (2018)