**Krisztian Toth, M.D., Ph.D.**

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**Professional Experience**

**Campbell University**,Buies Creek, NC 2017 – Present

Associate Professor of Pharmaceutical Sciences

Teach pharmacy students for Physiology, Anatomy, and Pathophysiology. Course director for PHRD631 Gastrointestinal Integrated Pharmacotherapy.

* Review research protocols for (IACUC) approval.
* Compile, analyze, and present research data at lectures.
* Train, mentor, and supervise undergraduate students.
* Serve on various Departmental and University committees (PharmD Curriculum committee, PharmD Academic Performance and Standards Committee-Chair, Institutional Animal Care and Use Committee-vice chair).

**Duke University Medical Center**, Durham, NC 2012 – Present

Adjunct Associate Professor, Department of Cell Biology (2017 – Present)

Teach medical students for microscopic anatomy and physiology. Instructor for Human Structure and Function course.

Advise postdoctoral scholars studying addictive behavior and underlying neural circuitry.

* Design and analyze data from animal intravenous self-administration project to identify Ghrelin receptor ligands for the treatment of drug abuse.
* Write, edit, and submit research reports and grants.

Senior Research Associate, Department of Cell Biology (2014 – 2017)

Initiated, planned, and led a project to investigate the Beta-Arrestin regulation of Ghrelin signaling in modulating addictive behavior.

* Design, conduct and analyze pre-clinical drug discovery projects to identify Ghrelin receptor ligands for the treatment of drug abuse.
* Develop collaborative relationships with key opinion leaders, senior scientists, postdoctoral fellows, and graduate students to ensure successful and timely completion of projects.
* Design and prepare research protocols for (IACUC) approval.
* Compile, analyze, and present research data at lectures.
* Train, mentor, and supervise Ph.D. and undergraduate students.
* Manage and supervise lab technicians in day-to-day lab operations.
* Write and submit grant applications.
* Applied biochemical, molecular, and cell biological approaches to identify a novel role for Ghrelin receptor in the regulation of addictive behavior.  Research could lead to identifying this receptor as a new therapeutic target for the treatment of drug abuse.
* Cultivated a collaborative scientific relationship with Key Opinion Leaders (KOLs) at the National Institute of Health, Chemical Genomic Center to perform high-throughput, small molecule screening for Ghrelin receptor.

Senior Research Associate, Department of Medicine (2012 – 2014)

Researched the role of G Protein-Coupled Receptor Kinase-Interactor 1 and 2 protein (GIT1 and 2) in the development of significant mental diseases such as post-traumatic stress disorder (PTSD) and attention deficit hyperactivity disorder (ADHD).

* Developed collaborative relationships with senior scientists, clinicians, postdoctoral fellows, and graduate students to support research objectives and meet timelines.
* Compiled, analyzed, and presented research data at scientific conferences and lectures.
* Trained and supervised lab technicians and undergraduate students in the lab.
* Applied behavioral, biochemical, molecular and cell biological approaches to characterize a novel role for G Protein-Coupled Receptor Kinase-Interactor 1 and 2 protein in mental disorders. Research could lead to identifying this protein as a new therapeutic target/ biomarker for susceptibility.

**Elon University**, Elon, NC 2015

Adjunct Assistant Teaching Professor of Biology

* Taught Physiology to undergraduate students.

**Penn State University College of Medicine**, Hershey, PA 2010 – 2012

Postdoctoral Fellow at the Department of Neural and Behavioral Sciences

Led an NIH-funded research project to verify that Glucagon-like peptide 1 receptor within a specific brain area (ventral tegmental area) had the necessary anatomical and functional properties to bring about changes in sucrose reward. These characteristics suggested that specific inhibitors of Glucagon-like peptide 1 receptor could be potential treatments for obesity.

* Trained and led a team of one technical specialist and a graduate student.
* Organized, analyzed, and presented study data.
* Developed study report and manuscripts.

**The University of Pecs**, Hungary 2001 – 2012

Assistant Teaching Professor, Department of Physiology (2009 – 2012)

Initiated, planned, and led a project to investigate the role of Ghrelin peptide in the emotional regulation of food intake.

* Developed collaborative relationships with key opinion leaders, senior scientists, clinicians, postdoctoral fellows, and graduate students to expand scope of project.
* Designed and prepared research protocols for (IACUC) approval.
* Compiled, analyzed, and presented research data at scientific conferences and lectures, nationally and internationally.
* Tutored medical, pharmacy, dentistry, and undergraduate students.
* Taught medical physiology lectures and labs.
* Managed and supervised lab technicians on day-to-day lab operations.
* Published research findings in peer-reviewed journals.
* Applied behavioral approaches to identify a novel role for ghrelin in the regulation of emotional eating. Research could lead to identifying new therapeutic approaches for eating disorders.

Ph.D. Student in Medical Sciences / Neuroscience (2004 – 2009)

Designed, conducted and analyzed research studies in the areas of anxiety disorders, food intake regulation, and the neurobiology of cognition.

* Developed collaborative relationships with senior scientists, clinicians, postdoctoral fellows, and graduate students to ensure successful and timely completion of projects.
* Compiled, analyzed, and presented research data at scientific conferences and lectures, nationally and internationally.
* Publish research findings in peer-reviewed journals.
* Applied behavioral pharmacology approaches to identify a novel role for brain-gut peptides in the regulation of food intake.

Research Trainee in Physiology (2001 – 2004)

**Patient care experience**

* Pediatric Oncology Internship (2004), University of Pecs, Hungary
* Surgery, Obstetric, and Neurology Internships (2003), University di Pavia, Italy
* Surgery Internship (2002), University of Pecs, Hungary
* Internal Medicine Internship (2001), University of Pecs, Hungary

**Education & Professional Development**

**Ph.D., Medical Sciences (Neuroscience), 2010**

The University of Pecs, Faculty of Medicine, Pecs, Hungary

**M.D., 2004**

The University of Pecs, Faculty of Medicine, Pecs, Hungary

**Neurotherapeutics Discovery & Development for Academic Scientists – Training, 2016**

National Institute of Health, Bethesda, MD

**Advanced Training Course in Neuroplasticity, 2007**

The University of Rome, Rome, Italy

**Regulatory Affairs Training Program, 2021**

The Office of Regulatory Affairs and Quality, Duke University, Durham, NC

**Active Grants**

* 1U18DA052417-01. A novel functionally selective drug for the treatment of cocaine abuse by antagonism of the beta-arrestin signaling arm of the Ghrelin Receptor. (Co-PI) 2020-
* 1R21DA053466-01. Leveraging Signal Bias At The Ghrelin Receptor To Modify Addictive Behavior. (Co-Investigator) 2021-

**Patents**

* DU7295PROV. US Provisional Patent Application 63/119,222 entitled, "COMPOSITIONS FOR THE TREATMENT OF FOOD AND CHEMICAL ADDICTION AND METHODS OF MAKING AND USING SAME," filed November 30, 2020. (DU7295PROV-2 filed September 22, 2021.)

**Honors**

* Professor of the year Campbell University College of Pharmacy and Health Sciences award. 2019
* Fellowship of the" Programme of European Neuroscience Schools", University of Rome, Italy, 2007
* Fellowship of the Grastyán Foundation, 2006
* Fellowship of the Hungarian Republic, 2003 – 2004
* ERASMUS Fellowship at the University of Pavia, Italy, 2003
* Teaching Student Fellowship, 2002 – 2004
* Pro Renovanda Cultura Hungariae Foundation "Students for Sciences" Scholarship, 2002

**Journal Reviewer**

* Pharmacology, Biochemistry and Behavior`
* British Journal of Pharmacology
* European Neuropsychopharmacology
* Reproductive Sciences
* Science Signaling

**Professional Affiliations**

* American Society for Experimental Neurotherapeutics 2016 - Present
* Society for Neuroscience, 2010 – 2018
* Hungarian Physiological Society, 2007 – Present
* European Neuroscience Association, 2006 – Present
* Hungarian Neuroscience Society, 2006 – Present

**Publications & Presentations**

**Peer-Reviewed Publications:**

É. Lányi, K. Csernus, É. Erhardt, **K. Tóth**, B. Urbán, L. Lénárd and D. Molnár: Plasma levels of acylated ghrelin during an oral glucose tolerance test in obese children. Eur. Journal of Endocrinological Investigation, Vol.30, No. 2, (February 2007) 133-137.

É. Fekete, É. E. Bagi, **K. Tóth** and L. Lénárd: Neuromedin C microinjected into the amygdala inhibits feeding. Brain Research Bull. 71 (2007) 386-392.

**K. Tóth**, K. László, É. E. Bagi, E. Lukács, L. Lénárd: Effect of intraamygdaloid microinjections of acylated-ghrelin on liquid food intake of rats. Brain Research Bull. 77 (2008) 105-111.

**K. Tóth**, K. László, E. Lukács, L. Lénárd: Intraamygdaloid microinjection of acylated-ghrelin influences passive avoidance learning. Behavioural Brain Research 202 (2), 308-311, (2009).

**K. Tóth**, K. László, L. Lénárd: Role of intraamygdaloid acylated-ghrelin in spatial learning. Brain Research Bulletin 81 (1), 33-37, (2010).

K. László, **K. Tóth**, E. Kertes, L. Péczely, L. Lénárd: The role of neurotensin in positive reinforcement in central nucleus of amygdala. Behavioural Brain Research, 208 (2), 430-435, (2010).

K. László, **K. Tóth**, E. Kertes, L. Péczely, T. Olmann, L. Lénárd: Effects of neurotensin in amygdaloid spatial learning. Behavioural Brain Research, 210 (2), 280-283, (2010).

K. László, **K. Tóth**, E. Kertes, L. Péczely, T. Olmann, A. Madarassy-Szucs, L. Lénárd: The role of neurotensin in passive avoidance learning in the rat central nucleus of amygdala. Behavioural Brain Research, 226 (2), 597-600, (2012).

Kovács A, László K, Gálosi R, **Tóth K**, Ollmann T, Péczely L, Lénárd L.: Microinjection of RFRP-1 in the central nucleus of amygdala decreases food intake in rats. Brain Research Bull.88 (6), 589-95, (2012).

**K. Toth**, L. M. Slosky, T. F. Pack, N. M. Urs, P. Boone, L. Mao, D. Abraham, M. G. Caron, L. S. Barak: Ghrelin receptor antagonism of hyperlocomotion in cocaine-sensitized mice requires βarrestin-2. Synapse. 2018 Jan;72(1).

A. C. Martyn, **K. Toth**, R. Schmalzigaug, N. Hedrick, R. M. Rodriguiz, R. Yasuda, W. C. Wetsel, R. T. Premont: GIT1 regulates synaptic plasticity underlying learning. PLoS ONE 13(3): e0194350, (2018).

**Toth K**, Nagi K, Slosky L, Rochelle L, Ray C, Kaur S, Shenoy S, Caron M, Barak L. Encoding the β-Arrestin Trafficking Fate of Ghrelin Receptor GHSR1a: C-Tail-Independent Molecular Determinants in GPCRs. ACS Pharmacol. Transl. Sci. 2019 August; 2(4):230-246. doi: 10.1021/acsptsci.9b00018.

Slosky LM, Bai Y, **Toth K**, Ray C, Rochelle LK, Badea A, Chandrasekhar R, Pogorelov VM, Abraham DM, Atluri N, Peddibhotla S, Hedrick MP, Hershberger P, Maloney P, Yuan H, Li Z, Wetsel WC, Pinkerton AB, Barak LS, Caron MG. β-Arrestin-Biased Allosteric Modulator of NTSR1 Selectively Attenuates Addictive Behaviors. Cell. 2020 Jun 11;181(6):1364-1379.e14. doi: 10.1016/j.cell.2020.04.053. Epub 2020 May 28. PubMed PMID: 32470395; PubMed Central PMCID: PMC7466280.

Gross JD, Kim DW, Zhou Y, Jansen D, Slosky LM, Clark N, Ray CR, Hu X, Southall N, Wang A, Xu X, Barnaeva E, Ferrer M, Marugan JJ2, Caron MG, Barak LS, **Toth K:** "Discovery of a Functionally-Selective Ghrelin Receptor (GHSR1a) Ligand for Modulating Brain Dopamine ". www.pnas.org, DOI number 10.1073/pnas.2112397119., 2022.

**Other significant publications, abstracts for citation:**

É. Fekete, É. E. Bagi, **K. Tóth** and L. Lénárd: Intraamygdaloid microinjection of neuromedin C influences feeding behavior. Acta Physiol. Hung. 89(1-3): 249, 2002.

**Tóth K**., Bagi É., Lénárd L.: Effects of ghrelin injected into the amygdala on food intake of rats. Acta Physiologica Hungarica, 92(3-4): 317, 2005.

Bagi, É.E., É. Fekete, **K. Tóth**, L. Lénárd: Angiotensinergic mechanism regulating NaCl and fluid balance in the zona incerta. Proceeding, J. Physiology London, 2005.

Bagi É., **Tóth K**., Truta-Feles K.,Lénárd L.: Angiotensinerg regulation of salt hunger in the zona incerta of rat brain. Acta Physiologica Hungarica, 92(3-4): 261, 2005.

O. Hangodi, B. Urbán, E. E. Bagi, E. M. Fekete, **K. Tóth** and L. Lénárd: Orexin-A microinjection mediated food and water intake are antagonized by selective orexin-1 receptor antagonist int he bad nucleus of stria terminalis. Int. Congress Series 1291, 141-144, 2006.

**Tóth K**., László K., Lukács E., Lénárd L.: Intra-amygdaloid ghrelinerg mechanisms in different learning paradigms. Acta Physiologica Hungarica, 94(4): 398, 2007.

László K., **Tóth K**., Bárdosi R., Oláh-Várady K., Kertes E., Lénárd L.: The role of neurotensin in Morris water maze and passive avoidance paradigm. Acta Physiologica Hungarica, 94(4): 369, 2007.

L Lenard, **K Toth**, K Laszlo, G Takacs, Z Karadi: Gut-brain axis. International Journal of Obesity Vol.32 (S1-2), S5-S5, 2008.

Laszlo K, **Toth K**, Molnar A, Kertes E, Peczely L and Lenard L (2009). Effects of Neurotensin 1 receptor and D2 dopamine receptor antagonist in amygdaloid learning mechanisms. Front. Behav. Neurosci. Conference Abstract: 41st European Brain and Behaviour Society Meeting. doi:10.3389/conf.neuro.08.2009.09.212.

K Laszlo, J Tenk, **K Toth**, E Kertes, T Ollmann, L Peczely, L Lenard: The role of intra-amygdaloid neurotensin receptor 1 and dopamine D2 receptor in spatial learning mechanism. Acta Physiologica Hungarica, 97 (4), 454-454, 2010.

**K Toth**, K Laszlo, L Lenard: Intra-amygdaloid acylated-ghrelin does desacylated-ghrelin does not change food intake. Acta Physiologica Hungarica, 97 (4), 482-483, 2010.

**K Toth**, K Laszlo, L Lenard: Intra amygdaloid acylated-ghrelin injections initiated acute changes in blood serum metabolite concentrations. Acta Physiologica Hungarica, 97 (1), 144, 2010.

László K, **Tóth K**, Kertes E, Péczely L, Ollmann T and Lénárd L (2010). The role of intraamygdaloid neurotensin receptor 1 in Morris water maze paradigm. Front. Neurosci. Conference Abstract: IBRO International Workshop 2010. doi: 10.3389/conf.fnins.2010.10.00167.

**Tóth K**, László K and Lénárd L (2010). Amygdaloid acylated-ghrelin injections induce changes in serum metabolit concentrations. Front. Neurosci. Conference Abstract: IBRO International Workshop 2010. doi: 10.3389/conf.fnins.2010.10.00135.

Mezei G, **Toth K**, Biegler J, Roca P, Whitley K, Repke JT, Hajnal A, Ural S. Developmental Programming of taste preferences due to maternal high fat diet in rats. Reprod Sci. 2014 March;21(3 suppl):270A.

**Toth K**, Martyn A, Bastrikova N, Kim W, Rodriguiz R, Ahmed U, Schmalzigaug R, Dudek S, Wetsel W, Premont R. GIT2 is dispensable for normal learning and memory function due to a predominant brain GIT2 splice variant that evades GIT/PIX complexes. BioRxiv. 2019 February; :538223. doi: 10.1101/538223.

**International Conferences:**

É. Fekete, É. E. Bagi, D. H. Coy, **K. Tóth** and L. Lénárd: Elimination of feeding suppression effect of gastrin releasing peptide (GRP) by selective GRP receptor antagonist in the amygdala. 11th Ann. Congress of International Behavioral Neuroscience Society, Capri (Italy). Abstracts of IBNS, Vol.11., p:34, 2002. Poster.

É. Fekete, É. E. Bagi, **K. Tóth** and L. Lénárd: Intraamygdaloid microinjection of neuromedin C influences feeding behavior. Abstract of the 4th Inernational Congress of Pathophysiology, Budapest (Hungary), 2002. Poster.

**Tóth K**.: Effects of intraamygdaloid Neuromedin B and Neuromedin C injections on food intake of rats. 10th International Scientific Student Conference, Marosvásárhely, Romania (Transylvania), 2003. Oral Presentation.

Lénárd, L., O. Hangodi, E. Bagi, B. Urban, E. Fekete, **K. Tóth**: Orexin-1 receptors mediate food and water intake related effects of Orexin-A in the bed nucleus of stria terminals. 14th Ann. Congress of International Behavioral Neuroscience Society, Santa Fe, New Mexico (USA), Abstr. of IBNS, Vol: 14, p.: 50, 2005. Poster.

O. Hangodi, B. Urbán, E. E. Bagi, E. M. Fekete, **K. Tóth** and L. Lénárd: Selective orexin-1 receptor antagonist (SB 334867) antagonizes the effects of orexin-A on food and water intake int the bad nucleus of stria terminalis. The 4th Neuroscience Workshop in Kyushu, Fukuoka (Japan), 2005. Poster.

**Tóth K**., Lukács E., László K., Bagi E. E., Lénárd L.: Effects of intraamygdalar injection of ghrelin on liquid food and water intake. International IBRO Workshop, Budapest (Hungary), 2006. Poster. Abstract book p.:94.

**K. Tóth**, K. László, É.E. Bagi, L. Lénárd: Ghrelinergic effect on feeding and spontaneous motor activity of rats in the amygdala. 5th Forum of the European Neuroscience Society (FENS), Vienna (Austria). FENS Abstr., vol.3, A043.18, 2006. Poster.

É.E. Bagi, K. **Tóth, K**. László, L. Lénárd: Angiotensinergic (AII and AIII) mechanisms in the zona incerta (ZI) regulating sodium solutionand water intake. 5th Forum of the European Neuroscience Society (FENS), Vienna (Austria). FENS Abstr., vol.3, A020.4, 2006. Poster.

K. László, E. Kertes, **K. Tóth**, K. Oláh-Várady, É.E. Bagi, Sz. Tálos, L. Lénárd: The role of neurotensin in positive reinforcement. 5th Forum of the European Neuroscience Society (FENS), Vienna (Austria). FENS Abstr., vol.3, A199.17, 2006. Poster.

**Tóth K**., Lukács E., László K., Bagi É. E., Lénárd L.: Intraamygdaloid acylated ghrelin causes food intake decrease. European Congress of Obesity 2007, Satellite meeting: Nutrition, Metabolism and the Brain, Tihany (Hungary), 25-27 April. Poster.

Lénárd L., Fekete É., **Tóth K.,** Hangodi O., Bagi É. E., Laszló K., Urbán B.: Anorexigenic and orexigenic peptides influence feeding releated regulation in the amygdaloid body. European Congress of Obesity 2007, Satellite meeting: Nutrition, Metabolism and the Brain, Tihany (Hungary), 25-27 April. Oral presentation.

**K. Tóth** , E. Lukács , K. László , L. Lénárd: Role of intraamygdaloid acylated-ghrelin in learning. Programme of European Neuroscience Schools, Advanced Course in Neuroplasticity. PENS Blackwell Summer School 2007. September 5-11, 2007, Rome (Italy). Poster.

**Tóth K**., László K., Lukács E., Lénárd L.: Effect of acylated ghrelin on learning and memory processes in the amygdala. Meeting of European Brain and Behaviour Society (EBBS), September 15-19, 2007. Triest (Italy). Poster. Abstract book p.:119.

K. Laszlo, **K. Toth**, E. Kertes, K. Olah-Varady, R. Bardosi and L. Lenard:Effects of intra-amygdaloid neurotensin on spatial learning and passive avoidance. Meeting of European Brain and Behaviour Society (EBBS), September 15-19, 2007. Triest (Italy). Poster. Abstract book p.:88.

**Tóth K.,** Lukács E., László K., Lénárd L.: Acylated-ghrelin microinjection into the amygdaloid body elevates blood glucose level and decreases food intake. International IBRO Workshop, Debrecen (Hungary), Jan. 23-26, 2008. Poster. Abstract book p.:47.

K. László, **K. Tóth**, R. Bárdosi, Á. Molnár, E. Kertes, K. Oláh-Várady, L. Lénárd: Enhancement of passive avoidance learning by Neurotensin injected into the rat central nucleus of amygdale. International IBRO Workshop, Debrecen (Hungary), Jan. 23-26, 2008. Poster. Abstract book p.:36.

Laszlo K., Bardosi R., Molnar A., Santa S., **Toth K.,** Kertes E., Olah-Varady K. and Lenard L.: Effects of neurotensin and D2 dopamine receptor antagonist in amygdaloid reinforcing mechanisms. 6th Forum of the European Neuroscience Society (FENS), Geneva (Switzerland). Abstr., vol.4, 093.5, 2008. Poster.

**Toth K.,** Laszlo K., Lukacs E. and Lenard L.: Intraamygdaloid acylated-ghrelin potentiates place- and avoidance learning. 6th Forum of the European Neuroscience Society (FENS), Geneva (Switzerland). Abstr., vol.4, 158.30, 2008. Poster.

**K. Toth**, H. Abraham, A. Hajnal: Glucagon-Like Peptide-1 Receptors in the Ventral Tegmental Area of the rat: electrophysiological functions and neuronal distribution. Conference of the Society for Neoroscience (SfN) 2011, Washington d.c (USA). Abstr., 285.02/RR9. Poster.

László K., Madarassy-Szucs A., Kupo P., Oroszlany A., **Toth K**., Ollmann T., Peczely L., Kertes E. and Lenard L.: The Role Of Neurotensin And Dopamine Interaction In Spatial Learning Mechanisms. 8th Forum of the European Neuroscience Society (FENS), Barcelona (Spain). Abstract, Volume 6, p116.27, 2012. Poster.

**K. Toth**, A.C. Martyn, R. Schmalzigaug, R.M. Rodriguiz, W.C. Wetsel, R.T. Premont: Git1 and Git2 regulate dopamine-dependent psychostimulant actions. Conference of the Society for Neoroscience (SfN) 2013, San Diego (USA). Abstr., 142.06/I12. Poster.

A.C. Martyn, **K. Toth,** R. Schmalzigaug, R.M. Rodriguiz, W.C. Wetsel, R.T. Premont: GTPase activating protein, GIT2, in post-traumatic stress and related anxiety disorders. Conference of the Society for Neoroscience (SfN) 2013, San Diego (USA). Abstr., 859.12/III30. Poster.

Mezei G, **Toth K,** Biegler J, Roca P, Whitley K, Repke JT, Hajnal A, Ural S. Developmental Programming of taste preferences due to maternal high fat diet in rats. Poster presentation, Society for Gynecologic Investigation 61st Annual Scientific Meeting, Florence (Italy), 2014. Reprod Sci. 2014 March;21(3 suppl):270A.

L. M. Slosky, **K Toth**, V. M. Pogorelov, Y. Bai, A. Pires, N. Clark, W. C. Wetsel, M. G. Caron, L. S. Barak: Self-Administration in Genetically Modified Mice: A Streamlined Platform for the Identification of Addiction Biomarkers, Therapies and Disease Mechanisms. National Institute on Drug Abuse (NIDA) Genetics Cross-Cutting Research Meeting. Poster presentation Jan. 8-9, 2018 (Rockville, MD, USA)

Slosky LM, **Toth K**, Bay Y, Rochelle L, Pogorelov V, Ray C, Chandrasekhar R, Yuan H, Badea A, Wetsel W, Pinkerton A, Caron MG, Barak LS.: Allosteric neurotensin receptor 1 modulator confers β-arrestin bias and selectively attenuates addiction-associated behaviors. Poster presentation. Neuroscience 2018; 2018 November 04; San Diego, CA, United States.

**Toth K**, Slosky LM, Evron T, Urs NM, Boone P, Caron MG, Barak LS.: Pharmacological versus genetic ablation of b-arrestin 2 signaling at the ghrelin receptor: Differential effect on cocaine-induced hyperlocomotion. Oral presentation. Neuroscience 2018; 2018 November 07; San Diego, CA, United States.

**National Conferences:**

É. Fekete, L. Lénárd, É. E. Bagi and **K. Tóth**: Effect of intraamygdalar gastrin releasing peptide and neuromedin B on food intake and blood glucose level in rats. Abstract of the 66th Joint Meeting of the Hungarian Physiological Society, Szeged (Hungary), Abstract book, p:64, 2001.

Fekete É., Bagi É. E., **Tóth K.,** Lénárd L.: Effects of intraamygdalar microinjected bombesin-type peptides on food intake and blood glucose level of rats. Hungarian Behaviour-Physiology Conference, Budapest (Hungary), 2002.

**Tóth K.,** Bányai D.: Effects of intraamygdalar injected neuromedin B on food intake of rat. Scientific Student Conference, Pécs (Hungary), 2002. Oral Presentation.First prize.

Bányai D., **Tóth K**.: Effects of angiotensin II and III microinjection on drinking behaviour of rats in the zona incerta. Scientific Student Conference, Pécs (Hungary), 2002. Oral Presentation. Second prize.

**Tóth K**.: Effects of intraamygdaloid Neuromedin B and Neuromedin C injections on food intake of rats. Scientific Student Conference, Pécs (Hungary), 2003. Oral Presentation. Second prize.

Bagi É. E., Fekete É., Bányai D., **Tóth K**., Lénárd L.: Role of the angiotensinergic mechanisms of zona incerta in regulation of thirst motivated behaviour. 67th Joint Meeting of the Hungarian Physiological Society, Pécs (Hungary), E33, p.:31, 2003.

Bagi É. E., Trotta-Feles K., **Tóth K**., Lénárd L.: The angiotensinergic regulation of the salt-hunger and water regime of the body in the zona incerta and amygdala. 68th Joint Meeting of the Hungarian Physiological Society, Debrecen (Hungary), 2004. Presentation.

Bagi É. E., Fekete É., **Tóth K**., Truta-Feles K., Lénárd L.: Angiotensinergic regulatory mechanisms of the salt-hunger and water regime in the central nervous system. 11th Meeting of the Hungarian Neuro-Physiological Society, Pécs (Hungary), 2005. Abstract book E:22. Presentation.

Hangodi O., Urbán B., Bagi É. E., Fekete É., **Tóth K.,** Lénárd L.: Effects of orexin-A microinjections into the bed nucleus of stria terminalis on food and water intake are antagonized by selective orexin-1 receptor antagonist SB334867. 11th Meeting of the Hungarian Neuro-Physiological Society, Pécs (Hungary), 2005. Abstract book p.:A 111. Poster.

**Tóth K**., Bagi É., Lénárd L.: Effect of intraamygdalar injection of ghrelin on food intake of rat. 69th Joint Meeting of the Hungarian Physiological Society, Budapest (Hungary), 2005. Abstract book E.:54. Presentation.

Bagi É., **K. Tóth**, K. Truta-Feles, L. Lénárd: The angiotensinergic regulation of salt-hunger in the zona incerta of rats. 69th Joint Meeting of the Hungarian Physiological Society, Budapest (Hungary), 2005. E55, p.: 49. Presentation.

**Tóth K**., László K., Lukács E., Bagi É. E. És Lénárd L.: Effect of intraamygdaloid ghrelin on food intake and open field activity of rats. 70th Joint Meeting of the Hungarian Physiological Society, Szeged (Hungary), 2006. Oral Presentation.

László K., Kertes E., **Tóth K.,** Oláhné Várady K., Tálos Sz, Lénárd L.: Role of the neurotensin and neurotensin-1 receptor antagonist (SR 48692) in positive reinforcement. 70th Joint Meeting of the Hungarian Physiological Society, Szeged (Hungary), 2006. Oral Presentation.

**Tóth K.,** László K., Lukács E., Lénárd L.: Effects of intraamygdaloid ghrelin on passive avoidance learning. 12th Meeting of the Hungarian Neuro-Physiological Society, Szeged (Hungary), 2007. Poster

K. László, **K. Tóth**, E. Kertes, K. Oláh-Várady, R. Bárdosi, L. Lénárd: Effect of neurotensin in amygdaloid learning mechanisms. 12th Meeting of the Hungarian Neuro-Physiological Society, Szeged (Hungary), 2007. Poster

**Tóth K**., László K., Lukács E., Lénárd L.: Investigation of intraamygdalar ghrelinerg mechanisms in different learning paradigms. 71th Joint Meeting of the Hungarian Physiological Society, Pécs (Hungary), jun 6-8, 2007. 2007. Oral Presentation C.4.2.

László K., **Tóth K**., Bárdosi R., Oláh-Várady K., Kertes E., Lénárd L.: Investigation of the effects of Neurotensin in Morris water maze and passive avoidance test. 71th Joint Meeting of the Hungarian Physiological Society, Pécs (Hungary), jun 6-8, 2007. Oral Presentation C.4.4.

K. László, R. Bárdosi, L. Péczely, Á. Molnár, Sz. Sánta, E. Kertes, K. Oláh-Várady, **K. Tóth**, L. Lénárd: Significance of the neurotensin- dopamine interactions in the reinforcement. 72nd Joint Meeting of the Hungarian Physiological Society, Debrecen (Hungary), jun 4-6, 2008. Oral Presentation. Abstract book p.:86.

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Victor M Pulgar, **Krisztian Toth**: β-arrestin-2-mediated Vasodilatation In Mouse Mesenteric Arteries. American Heart Association Meeting. Hypertension 2021 Virtual Scientific Sessions, Poster presentation, September 27 - 29, 2021.

**Invited Speaker:**

Speaker at the Neurobiology Seminar of Bygen Institute: Chronic Neuronal Recording Techniques in Freely Moving Rat. Baygen Institute, Bay Zoltan Foundation for Applied Research, Szeged (Hungary), August 12, 2010.

Speaker at the Department of Biochemistry, Pharmaceutical Sciences, Campbell University: Ghrelinerg mechanisms in the regulation of food intake. Campbell University, Buies Creek, NC (USA), 2013.

Speaker at the Society for Neuroscience Conference, "Looking for Biological Interventions for Cocaine Use Disorder" nanosynposia: Pharmacological versus genetic ablation of b-arrestin 2 signaling at the ghrelin receptor: Differential effect on cocaine-induced hyperlocomotion. Neuroscience 2018; 2018 November 07; San Diego, CA, United States.

Speaker at Biogen, Seminar to Biogen CNS/Neuropsych portfolio development team: Biased Signaling at the Ghrelin Receptor. Online, 6.22.2021