

Dr. Zsolt Pirger's list of publication, 2002-2011

2011

Mark, L., Maasz, G., Pirger, Z.

High resolution spatial distribution of neuropeptides by MALDI imaging mass spectrometry in the terrestrial snail, *Helix pomatia*

ACTA BIOLOGICA HUNGARICA 63: (Supp. 2) in press

Kiss, T., Laszlo, Z., Pirger, Z.

Correlation between molecular expression and kinetic properties of persistent Na-channel subtypes in *Helix pomatia*

NEUROSCIENCE, in press

IF: 3.480

Kiss, T., Pirger, Z.

Multifunctional role of PACAP-like peptides in molluscs

PROTEIN AND PEPTIDE LETTERS, in press

IF: 1.849

2010

Pirger, Z., Laszlo, Z., Hiripi, L., Hernadi, L., Toth, G., Lubics, A., Reglodi, D., Kemenes, G., Mark, L.

Pituitary adenylate cyclase activating polypeptide (PACAP) and its receptors are present and biochemically active in the central nervous system of the pond snail *Lymnaea stagnalis*.

JOURNAL OF MOLECULAR NEUROSCIENCE 42:(3) pp. 464-71 (2010)

IF: 2.720

Pirger, Z., Lubics, A., Reglodi, D., Laszlo, Z., Mark, L., Kiss, T.

Mass spectrometric analysis of activity-dependent changes of neuropeptide profile in the snail, *Helix pomatia*.

NEUROPEPTIDES 44:(6) pp. 475-83 (2010)

IF: 2.438

Pirger, Z., Kiss, T., Laszlo, Z., Vaczy, A., Mark, L.

Modern tömegspektrometriai módszerek (MALDI TOF és LC-ESI) alkalmazása a vizek hormontartalmának kimutatásár.

HIDROLOGIAI KÖZLÖNY 90: pp. 117-119 (2010)

Pirger, Z., Laszlo, Z., Tóth, G., Kemenes, I., Reglodi, D., Kemenes, G.

A homologue of a vertebrate pituitary adenylate cyclase activating peptide is both necessary and instructive for the rapid formation of associative memory in an invertebrate.

JOURNAL OF NEUROSCIENCE 30:(41) pp. 13766-73 (2010)

IF: 7.452

2009

Pirger, Z., Rácz, B., Kiss, T.

Dopamine-induced programmed cell death is associated with cytochrome-c release and

caspase-3 activation in snail salivary gland cells.

BIOLOGY OF THE CELL 101:(2) pp. 105-116. (2009)

IF: 3.438

Kiss, T., Pirger, Z., Kemenes, G.

Food-aversive classical conditioning increases a persistent sodium current in molluscan withdrawal interneurons in a transcription dependent manner.

NEUROBIOLOGY OF LEARNING AND MEMORY 92:(1) pp. 114-119. (2009)

IF: 3.757

2008

Pirger, Z., Nemeth, J., Hiripi, L., Toth, G., Kiss, P., Lubics, A., Tamas, A., Hernadi, L., Kiss, T., Reglodi, D.

PACAP has anti-apoptotic effect in the salivary gland of an invertebrate species, *Helix pomatia*.

JOURNAL OF MOLECULAR NEUROSCIENCE 36: pp. 105-114. (2008)

IF: 2.970

Nikitin, E.S., Vavoulis, D.V., Kemenes, I., Marra, V., Pirger, Z., Michel, M., Feng, J., O'Shea, M., Benjamin, P.R., Kemenes, G.

Persistent sodium current is a nonsynaptic substrate for long-term associative memory.

CURRENT BIOLOGY 18:(16) pp. 1221-1226. (2008)

IF: 10.777

Hernádi, L., Pirger, Z., Kiss, T., Németh, J., Márk, L., Kiss, P., Tamás, A., Lubics, A., Tóth, G., Shioda, S., Reglődi, D.

The presence and distribution of pituitary adenylate cyclase activating polypeptide and its receptor in the snail *Helix pomatia*.

NEUROSCIENCE 155:(2) pp. 387-402. (2008)

IF: 3.556

2006

Pirger, Z., Laszlo, Z., Kiss, T.

G-protein coupled receptor kinase-like immunoreactivity in the snail, *Helix pomatia*, neurons.

BRAIN RESEARCH 1122: pp. 10-17. (2006)

IF: 2.341

Pirger, Z., Elekes, K., Kiss, T.

Electrical properties and cell-to-cell communication of the salivary gland cells of the snail, *Helix pomatia*.

COMPARATIVE BIOCHEMISTRY AND PHYSIOLOGY A-MOLECULAR & INTEGRATIVE PHYSIOLOGY 145:(1) pp. 7-19. (2006)

IF: 1.553

2004

Pirger, Z., Elekes, K., Kiss, T.

Functional morphology of the salivary gland of the snail, *Helix pomatia*: a histochemical and

immunocytochemical study.

ACTA BIOLOGICA HUNGARICA 55:(1-4) pp. 221-232. (2004)

IF: 0.643

Book chapter:

Kiss, T., Pirger, Z.

Neuropeptides as modulators and hormones in terrestrial snails: Their occurrence, distribution and physiological significance. (book chapter)

In: Satake H. (szerk.)

Invertebrate neuropeptides and hormones: basic knowledge and recent advances.

Kerala: **Transworld Research Network**, 2006. pp. 75-115.

(ISBN:81-7895-224-6)

Abstracts:

Pirger, Z., Szappanos, H., Gönci, M. (2003): Purinergic signaling mechanisms in cultured mouse skeletal muscle cells. 9th Conference of the Hung. Neurosci. Soc., Balatonfüred; **Clinical Neurosci.**, 56:71, 2.

Pirger, Z., Elekes, K., Kiss, T. (2004): Aminergic and peptidergic regulation of the snail salivary gland: electrophysiology and immunocytochemistry. IBRO-MITT Internat. Workshop, Budapest. **Clinical Neurosci.**, 57:75, 1.

Pirger, Z., Elekes, K., Kiss, T. (2005): Electrical properties and voltage-gated ion-channels of the salivary gland cells of the snail, *Helix pomatia*. 15th IUPAB and 5th EBSA Internat. Biophysics Congress, France, Montpellier. **Eur. Biophys. J.** 34:651, 6

Pirger, Z., László, Z., Kiss, T. (2005): Occurrence and the role of G-protein coupled receptor kinase in the desensitization of mytilus-inhibitory peptide receptors in *Helix pomatia*. 11st. MITT kongresszus, Pécs; **Clinical Neurosci.**, 58:77, 1.

Pirger, Zs., László, Z. and Kiss, T. (2006): G-protein coupled receptor kinase-like immunoreactivity in the snail, *Helix pomatia*. **FENS, Abstr.**, vol.3, 048.20

Pirger, Z., Reglodi D, Hernadi L, Nemeth J, Toth G, Kiss P, Lubics A, Kiss T. (2007): PACAP has antiapoptotic effect in the salivary gland of a molluscan species, *Helix pomatia*. 8th Symposium on VIP, PACAP, and Related Peptides, Manchester and Burlington, Vermont, USA; **J. Mol. Neurosci.** 33: 333, 5.

Godó, Z., Pirger, Z., (2007): The application of artificial neural network in neurophysiology. **microCAD**, proceedings. pp. 63-69.

Pirger Z., Kiss T., Laszlo Z., Battonyai I., Elekes K. (2010): Sodium-channel subtypes and membrane current characteristics of the procerebral neurons of *Helix pomatia*. **FENS Abstr.**, vol.5, 082.19

Conferences:

1. Godó, Z., Pirger, Zs., Vince V. (2001): Induction of glutathion-S-transferase enzyme with psychoactive pharmacons; *poster presentation*. **XXXI. Membrane Transport Conference**, Sümeg. *p. 84*
2. Pirger, Z., Szappanos, H., Gönci, M. (2003): Purinerg signaling mechanisms in cultured mouse skeletal muscle cells; *poster presentation*. **9th Conference of the Hung. Neurosci. Soc. (MITT)**, Balatonfüred
3. Pirger, Zs., Elekes, K., Kiss, T. (2003): Morphological changes accompanying the saliva production in the salivary gland of the snail, *Helix pomatia*; *poster presentation*. **10th Int. Symp. on Invertebr. Neurobiol. (ISIN)**, Tihany.
4. Pirger, Zs., Elekes, K., Kiss, T. (2004): Aminergic and peptidergic regulation of the snail gland: electrophysiology and immunocytochemistry; *poster presentation*. **IV. Magyar Sejtanalitikai Konferencia**, Budapest.
5. Pirger, Zs., Elekes, K., Kiss, T. (2004): Aminergic and peptidergic regulation of the snail gland: electrophysiology and immunocytochemistry; *poster presentation*. **4th Forum of Europ. Neurosci. (FENS)**, Lisbon, Portugal, *abstract no. A-082*.
6. Pirger, Z., Elekes, K., Kiss, T. (2004): Aminergic and peptidergic regulation of the snail salivary gland: electrophysiology and immunocytochemistry; *poster presentation*. **5th Internat. Brain Res. Organ. (IBRO)**, workshop, Budapest.
7. Pirger, Zs., Elekes, K., Kiss, T. (2005): Electrical properties and voltage-gated ion-channels of the snail, *Helix pomatia*, salivary gland cells; *oral presentation*. **Magyar Biofizikai Társaság (MBFT) XXII. Kongresszusa**, Debrecen.
8. Pirger, Zs., Elekes, K., Kiss, T. (2005): Electrical properties and voltage-gated ion-channels of the salivary gland cells of the snail, *Helix pomatia*; *poster presentation*. **15th Internat. Union for Pure and Applied Biohys. (IUPAB) and 5th Eur. Biophys. Soc. Assoc. (EBSA) Internat. Congress**, France, Montpellier.
9. Pirger, Z., László, Z., Kiss, T. (2005): Occurrence and the role of G-protein coupled receptor kinase in the desensitization of mytilus-inhibitory peptide receptors in *Helix pomatia*; *poster presentation*. **11th MITT**, Pécs
10. Pirger, Zs., Kiss, T. (2006): Nyálfelszabadulás apoptózissal az éti csiga nyálmirigysejtjeiből; *poster presentation*. **V. Magyar Sejtanalitikai Konferencia**, Budapest, *abstract no. A-0020*.
11. Pirger, Zs., László, Z. and Kiss, T. (2006): G-protein coupled receptor kinase-like immunoreactivity in the snail, *Helix pomatia*; *poster presentation*. **5th FENS**, Vienna, Austria, *abstract no. A-048.20*.
12. Pirger, Zs., Kiss, T., Németh, J., Hernádi, L., Reglődi, D. (2007): The presence and distribution of pituitary adenylate cyclase activating polypeptide (PACAP) and its receptor (PAC-R) in the snail; *oral presentation*. **11th ISIN**, Tihany, Hungary
13. Pirger, Zs., Juhász-Vedres, G., Kiss, T. (2007): Distribution and localization of different sodium channel subtypes in snail; *poster presentation*. **11th ISIN**, Tihany, Hungary
14. Kiss, T., Pirger, Zs., Kemenes, G., (2007): Food-aversive conditioning increases persistent Na-current in withdrawal interneurons; *poster presentation*. **11th ISIN**, Tihany, Hungary
15. Hiripi, L., Pirger, Zs., Kiss, T., Elekes, K. (2007): Protein phosphorylation in the heart and foot of *Helix pomatia* during active state; *oral presentation*. **11th ISIN**, Tihany, Hungary

16. Pirger, Zs., Elekes, K., Kiss, T., Hiripi, L. (2007): Activity state of *Helix pomatia* is regulated by a serotonin-receptor coupled to adenyl-cyclase; *poster presentation*. **Soci. for Neurosci. (SfN) Conference**, San Diego, California, USA
17. Pirger, Z., Reglodi D, Hernadi L, Nemeth J, Toth G, Kiss P, Lubics A, Kiss T. (2007): PACAP has antiapoptotic effect in the salivary gland of a molluscan species, *Helix pomatia*. **8th Internat. Symp. on VIP, PACAP, and Related Pept.**; *oral presentation*. Manchester and Burlington, Vermont, USA
18. Godó, Z., Pirger, Z. (2007): The application of artificial neural network in neurophysiology. **Internat. Scien. Conf. (microCAD)**; Miskolc, Hungary, *proceedings. pp. 63-69.*
19. Pirger, Zs., Kiss, T., Németh, J., Hernádi, L., Reglődi, D. (2008): The presence and distribution of pituitary adenylate cyclase activating polypeptide (PACAP) and its receptor (PAC-R) in the snail; *poster presentation*. **Prog. of Eur. Neurosci. School (PENS), Winter School**, Obergurgl, Austria
20. Pirger, Zs., Kiss, T., Németh, J., Hernádi, L., Reglődi, D. (2008): The presence and distribution of pituitary adenylate cyclase activating polypeptide (PACAP) and its receptor (PAC-R) in the snail; *poster presentation*. “15 éves a molekuláris biológus képzés a Debreceni Egyetemen” – előadássorozat, Debrecen, Magyarország.
21. Pirger Zs. (2008): A purinerg receptortól az apoptózison át, a perzisztens Na-csatornák elemi tanulásban betöltött szerepéig; meghívott előadó. “15 éves a molekuláris biológus képzés a Debreceni Egyetemen” – előadássorozat Debrecen, Magyarország.
22. Kiss, T., Pirger, Zs. (2008): A perzisztens Na-csatornák és szerepük az elemi tanulásban; szóbeli előadás. **XXXVIII. Membrán-Transzport Konferencia**, Sümeg, Magyarország
23. Reglodi, D., Pirger, Zs., Mark, L., Nemeth, J., Hiripi, L., Kiss, P., Lubics, A., Tamas, A., Kiss, T. (2008): Activity-dependent changes in the protein composition of *Helix pomatia* with special reference to pituitary adenylate cyclase activating polypeptide; *poster presentation*. **24th Conf. of Eur. Comp. Endocr. (CECE), Genoa, Italy**
24. Pirger, Z., László, Z., Hiripi, L., Reglődi, D. and Kemenes, G. (2009): Bi-directional role for pituitary adenylate cyclase activating polypeptide (PACAP) in associative memory formation in *Lymnaea*; *poster presentation*. **Molluscan Neuroscience Meeting**, San Juan, Poerto Rico
25. Lubics, A., Mark, L., Vaczy, A., Reglodi, D., Nemeth, J., Kiss, P., Kiss, T., Pirger, Z. (2009): Activity-dependent changes in the protein composition of the snail, *Helix pomatia* with special reference to pituitary adenylate cyclase activating polypeptide; *poster and oral presentation*. Satellite Symposium of the **9th Internat. Symp. on VIP, PACAP and Related Pept.**, Yakoshima, Japán.
26. Pirger, Z., Laszlo, Z., Hiripi, L., Reglodi, D., Lubics, A., Mark, L., Kemenes, G. (2009): Memory, cAMP and PACAP - a phylogenetically conserved function? - studies in *Lymnea stagnalis*; - *poster and oral presentation*. **9th Internat. Symp. on VIP, PACAP and Related Pept.**, Kagoshima, Japán.
27. Pirger, Z., László, Z., Kemenes, G., Kiss, T. (2009): Distribution, localization and electrophysiological characteristics of persistent sodium-channel subtypes in snail, *Helix pomatia*; *poster and oral presentation*. **IX. East Eur. Conf. of the Internat. Soci. for Inverteb. Neurobiol.**, Szentpétervár, Oroszország.
28. Pirger, Z., Kiss, T., Laszlo, Z., Vaczy, A., Mark, L. (2009): Modern tömegspektrometriai módszerek (MALDI TOF és LC-ESI) alkalmazása a vizek hormontartalmának kimutatására – **51. Hidrobiológus Napok**, Tihany.

29. Pirger, Z., Kiss, T., Laszlo, Z., Battonyai, I., Elekes, K. (2010): Sodium-channel types and membrane current characteristics of the procerebral neurons of *Helix pomatia*; *poster presentation*. **7th FENS**, Amsterdam, Hollandia, *abstract n° 082.19*
30. Godó Z., Kocsis D., Révész Cs., Pirger Z. (2010): Egyes környezetterhelő neurotoxikus ágensek aktivációja a GST detoxifikációs mechanizmusra. **16th Building Services, Mechanical, and Building Industry Days, Environmental Engineering Section**, Debrecen, Hungary, *proceedings pp. 206-213. ISBN 978-963-473-423-9*
31. Pirger, Z. (2010): Mass spectrometric analysis of seasonal-dependent changes of neuropeptide profile in the snail, *Helix pomatia*; *oral presentation*. **25th CECE**, Pécs, Magyarország
32. Pirger, Z., Elekes, K., Kiss, T., (2011): Sodium-channel subtypes and membrane current characteristics of the procerebral neurons of *Helix pomatia*; *poster presentation*. **8th IBRO Word Congress of Neurosci.**, Firenze, Olaszország
33. Maász, G., Pirger, Z., Bóna, Á., Jámbor, É., Márk, L., (2011): Neuropeptidek vizsgálata nagyfelbontású tömegspektrometriás képképző módszerekkel; *oral presentation*. **Magyar Biokémiai Egyesület 2011. Évi Vándorgyűlése**, Pécs, Hungary
34. Márk L., Boros-Major A., Reglődi D., Laszlo Z., Pirger Z., Kiss T., Ohmacht R. (2011): Évszakfüggő változások a *Helix pomatia* peptidprofiljában; *oral presentation*. **LXXV. MÉT Vándorgyűlés**, Pécs, Hungary
35. Pirger, Z., Naskar, S., Pringle, A., Laszlo, Z., Vaczy, A., Pechl, V., Kemenes, G., Mark, L., Kiss, T., Reglodi, D. (2011): PACAP - a phylogenetically conserved neuropeptide; *poster presentation*. **12th ISIN**, Tihany, Hungary
36. Pirger, Z., Laszlo, Z., Kemenes, G., O'Shea, M., Benjamin, P.R., Kemenes, I. (2011): Analysis of feeding and withdrawal circuits reveals neural mechanisms of decision making; *oral presentation*. **12th ISIN**, Tihany, Hungary
37. Kemenes, I., Pirger, Z., Laszlo, Z., Kemenes, G., Benjamin, P.R., O'Shea, M. (2011): A systems level analysis of decision making: the interaction of feeding and withdrawal behaviors in *Lymnaea*; *oral presentation*. **12th ISIN**, Tihany, Hungary
38. Márk, L., Laszlo, Z., Kemenes, G., Pirger, Z. (2011): High resolution spatial distribution of neuropeptides by MALDI imaging MS of the pond snail, *Lymnaea stagnalis*; *oral presentation*. **12th ISIN**, Tihany, Hungary
39. Pirger, Z., Laszlo, Z., Kemenes, G., O'Shea, M., Benjamin, P.R., Kemenes, I. (2011): Analysis of feeding and withdrawal circuits reveals neural mechanisms of decision making; *poster presentation*. **SfN**, Washington, DC, USA
40. Kemenes, I., Pirger, Z., Laszlo, Z., Kemenes, G., Benjamin, P.R., O'Shea, M. (2011): A systems level analysis of decision making: the interaction of feeding and withdrawal behaviors in *Lymnaea*; *poster presentation*. **SfN**, Washington, DC, USA
41. Pirger, Z., Pringle, A., Naskar, S., Laszlo, Z., Pechl, V., Kemenes, G., Kiss, T., Reglodi, D. (2011): The physiological effects of the vertebrate pituitary adenylate cyclase activating polypeptide (PACAP) on molluscan hearts; *poster presentation*. **10th Internat. Symp. on VIP-PACAP and Related Pept.**, Eilat, Izrael
42. Pirger, Z., Bona, A., Maasz, G., Jambor, E., Laszlo, Z., Mark, L. (2012): Three-dimension, high resolution MALDI MS imaging investigation of neuropeptides in the pond snail, *Lymnaea stagnalis*; *oral presentation*. **PITTCON Conference and Expo**, Orlando, FL, USA