
BIOGRAPHICAL SKETCH

NAME Baranyi Maria	POSITION TITLE Research Fellow		
eRA COMMONS USER NAME baranyi			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Technical University, Budapest, Hungary	BSc	1976	General chemical engineering knowledge
Technical University, Budapest, Hungary	MSc	1978	Organic biological chemistry
Technical University, Budapest, Hungary	MSc	1988	Analytical chemistry
Technical University, Budapest, Hungary	MSc	1990	Applied biotechnology and food science

A. Positions and Honors.

Positions and Employment

1976-1986	Chemical engineer, Chinoin Pharmaceutical & Chemical Works Ltd., Budapest, Hungary
1986-1990	Chemical engineer, Eötvös Loránd University, Department of General Zoology, Budapest, Hungary
1990-present	Research Fellow, Institute of Experimental Medicine (IEM), Hungarian Academy of Sciences (HAS), Budapest, Hungary
1992:	Visiting scientist, Center of Neurochemistry, Orangeburg, New York

Other Experience and Professional Memberships

1978	Hungarian Chemical Society
1992	Hungarian Experimental and Clinical Pharmacological Society
1996	Hungarian Neuroscience Society
1999	Hungarian Separation-science Society

Honors

1986. Excellence in Chemical engineering

B. Research Support

Ongoing Research Support

Completed Research Support

B. Bibliography (full papers, in chronological order).

- [1] Vizi ES, Sperlách B, Baranyi M. (1992) Evidence that ATP, released from the postsynaptic site by noradrenaline, is involved in mechanical responses of guinea-pig vas deferens: cascade transmission. *Neuroscience*. 50: 455-465.
- [2] Vizi ES, Tóth I, Orsó E, Szalay KSz, Szabó D, Baranyi M, Vinson GP (1993) Dopamine is taken up from the circulation by, and released from, local noradrenergic varicose axon terminals in zona glomerulosa of the rat: a neurochemical and immunocytochemical study. *J Endocrinol*. 139: 213-226.

- [3] Málly J, Baranyi M (1994) Change in the concentrations of amino acids in cisternal CSF of patients with essential tremor. *J Neurol Neurosurg Psychiatr.* 57: 1012-1013.
- [4] Milusheva E, Baranyi M, Zelles T, Mike Á, Vizi ES (1994) Release of acetylcholine and noradrenaline from the cholinergic and adrenergic afferents in rat hippocampal CA1, CA3 and dentate gyrus regions. *Eur J Neurosci.* 6: 187-192.
- [5] Haller J, Barna I, Baranyi M (1995) Hormonal and metabolic responses during psychosocial stimulation in aggressive and nonaggressive rats. *Psychoneuroendocrinology.* 20: 65-74.
- [6] Zelles T, Chernaeva M, Baranyi M, Déri Z, Adam-Vizi V, Vizi ES (1995) Transmitter release by non-receptor activation of the α -subunit of guanine nucleotide regulatory protein in rat striatal slices. *J Neurosci Res.* 42: 242-251.
- [7] Málly J, Baranyi M, Vizi ES (1996) Change in the concentration of amino acids in CSF and serum of patients with essential tremor. *J Neural Transm Gen Sect.* 103: 71-73.
- [8] Milusheva E, Dóda M, Baranyi M, Vizi ES (1996) Effect of hypoxia and glucose deprivation on ATP level, adenylate energy charge and $[Ca^{2+}]_o$ -dependent and independent release of $[^3H]$ dopamine in rat striatal slices. *Neurochem Int.* 28: 501-507.
- [9] Lendvai B, Sershen H, Lajtha A, Santha E, Baranyi M, Vizi ES (1996) Differential mechanisms involved in the effect of nicotinic agonists DMPP and lobeline to release $[^3H]5-HT$ from rat hippocampal slices. *Neuropharmacology*, 35 (12): 1769-1777.
- [10] Bencsics Á, Sershen H, Baranyi M, Hashim A, Lajtha A, Vizi ES (1997) Dopamine, as well as norepinephrine, is a link between noradrenergic nerve terminals and splenocytes. *Brain Res.* 761: 236-243.
- [11] Sperlággh B, Zsilla G, Baranyi M, Kékes-Szabó A, Vizi ES (1997) Age-dependent changes of presynaptic neuromodulation via A_1 -adenosine receptors in rat hippocampal slices. *Int J Dev Neurosci.* 15: 739-747.
- [12] Nakai T, Milusheva E, Baranyi M, Uchihashi Y, Satoh T, Vizi ES (1999) Excessive release of $[^3H]$ noradrenaline and glutamate in response to stimulation of ischemic conditions in rat spinal cord slice preparation: effect of NMDA and AMPA receptor antagonists. *Eur J Pharmacology*, 366(2-3): 143-150.
- [13] Sperlággh B, Doda M, Baranyi M, Hasko G (2000) Ischemic-like condition releases norepinephrine and purines from different sources in superfused rat spleen strips. *J Neuroimmun.* 111 (1-2): 45-54.
- [14] Santha E, Sperlággh B, Zelles T, Zsilla G, Toth PT, Lendvai B, Baranyi M, Vizi ES (2001) Multiple cellular mechanisms mediated the effect of lobeline on the release of norepinephrine. *J Pharmacology and Exp Therapeutics.* 294 (1): 761-768.
- [15] Gerevich Z, Tretter L, Adam-Vizi V, Baranyi M, Kiss JP, Zelles T, Vizi ES (2001) Analysis of high intracellular $[Na^+]_i$ -induced release of $[^3H]$ noradrenaline in rat hippocampal slices. *Neuroscience*, 104 (3): 761-768.
- [16] Halmos G, Lendvai B, Gaborjan A, Baranyi M, Szabo LZ, Vitez LC (2002) Simultaneous measurement of glutamate and dopamine release from isolated guinea pig cochlea. *Neurochem Int.* 40 (3):243-248.
- [17] Sperlággh B, Szabo G, Erdelyi F, Baranyi M, Vizi ES (2003) Homo- and heteroexchange of adenine nucleotides and nucleosides in rat hippocampal slices by the nucleoside transport system. *Br. J. Pharmacology*, 139 (3): 623-633.
- [18] Milusheva EA, Baranyi M (2003) Implication of ionotropic glutamate receptor in the release of noradrenaline in hippocampal CA1 and CA3 subregions under oxygen and glucose deprivation. *Neurochem Int.* 43 (6):543-550.
- [19] Milusheva E, Sperlággh B, Shikova L, Baranyi M, Tretter L, Adam-Vizi V, Vizi ES (2003) Non-synaptic release of $[^3H]$ noradrenaline in response to oxidative stress combined with mitochondrial dysfunction in rat hippocampal slices. *Neuroscience* 120 (3): 771-781.
- [20] Vizi ES, Palkovits M, Lendvai B, Baranyi M, Kovacs KJ, Zelles T (2004) Distinct temperature-dependent dopamine-releasing effect of drugs of abuse in the olfactory bulb. *Neurochem Int.* 45 (1):63-71.
- [21] Sperlággh B, Baranyi M, Hasko G, Vizi ES (2004) Potent effect of interleukin-1 beta to evoke ATP and adenosine release from rat hippocampal slices. *J Neuroimmun.* 151 (1-2): 33-39.
- [22] Milusheva E, Baranyi M, Kittel A, Sperlággh B, Vizi ES (2005) Increased sensitivity of striatal dopamine release to H_2O_2 upon chronic rotenone treatment. *Free Radical Biology and Medicine*, 39 (1): 133-142.
- [23] Baranyi M, Milusheva E, Vizi ES, Sperlággh B (2006) Chromatographic analysis of dopamine metabolism in a Parkinsonian model. *J. Chromatography A*, 1120 (1-2): 13-20.
- [24] Sperlággh B, Zsilla G, Baranyi M, Illes P, Vizi ES (2007) Purinergic modulation of glutamate release under ischemic-like conditions in the hippocampus. *Neuroscience* 149 (1): 99-111.

- [25] Kwakowsky A, Schwirtlich M, Zhang Q, Eisenstat DD, Erdelyi F, Baranyi M, Katarova ZD, Szabo G (2007) GAD isoforms exhibit distinct spatiotemporal expression patterns in the developing mouse lens: Correlation with D1x2 and D1x5. *Dev. Dynamics*, 105 (12): 3532-3544.
- [26] Milusheva E, Baranyi M, Kittel A, Fekete A, Zelles T, Vizi ES, Sperlagh B (2008) Modulation of dopaminergic neurotransmission in rat striatum upon in vitro and in vivo diclofenac treatment. *J Neurochemistry*, 105 (2): 360-368.
- [27] Valverde O, Célérier E, Baranyi M, Vanderhaeghen P, Maldonado R, Sperlagh B, Vassart G, Ledent C (2009) GPR3-receptor, a novel actor in the emotional-like responses. *Plos One*, 4 (3): e4704.
- [28] Milusheva E, Baranyi M, Kormos E, Hracsko Z, Vizi ES, Sperlagh B (2010) The effect of antiparkinsonian drugs on oxidative stress induced pathological [(3)H]dopamine efflux after in vitro rotenone exposure in rat striatal slices. *Neuropharmacology*, 58(4-5), 816-825
- [29] Hracsko Z, Baranyi M, Csölle C, Goloncser F, Madarasz E, Kittel A, Sperlagh B (2011) Lack of neuroprotection in the absence of P2X7 receptors in toxin-induced animal models of Parkinson's disease. *Molecular Neurodegeneration*, 6, 28.
- [30] Csölle C, Andó RD, Kittel A, Göllöncsér F, Baranyi M, Soproni K, Zelena D, Haller J, Németh T, Mócsai A, Sperlagh B. (2013) The absence of P2X7 receptors (P2rx7) on non-haematopoietic cells leads to selective alteration in mood-related behaviour with dysregulated gene expression and stress reactivity in mice. *Int J Neuropsychopharmacol*. 16(1):213-233.