

Lawrence Edelstein, Ph.D.
LIST OF PUBLICATIONS

Journal Articles

Druga, R.; Salaj, M.; Barinka, F.; Edelstein, L.; and H. Kubová “Calretinin immunoreactivity in the claustrum of the rat,” *Frontiers in Neuroanatomy*, 2015, 8:160. doi:10.3389/fnana.2014.00160 [Open Access Link: <http://journal.frontiersin.org/Journal/10.3389/fnana.2014.00160/full>]

Edelstein, L., and J. Smythies “Epigenetic aspects of telocytes/cordocytes: jacks of all trades, masters of most,” *Frontiers in Cellular Neuroscience*, 2014, 8:32. doi: 10.3389/fncel.2014.00032 [Open Access Link: www.frontiersin.org/Journal/10.3389/fncel.2014.00032/full]

Edelstein, L.; and J. Smythies “The role of epigenetic-related codes in neurocomputation: dynamic hardware in the brain,” *Philosophical Transactions of the Royal Society of London B*, 2014, 369 [http://rstb.royalsocietypublishing.org/lookup/doi/10.1098/rstb.2013.0519]

Edelstein, L., and J. Smythies “The role of telocytes in morphogenetic bioelectrical signaling: once more unto the breach,” *Frontiers in Molecular Neuroscience*, 2014, 7:41. doi: 10.3389/fnmol.2014.00041 [Open Access Link: <http://journal.frontiersin.org/Journal/10.3389/fnmol.2014.00041/full>]

Edelstein, L.; Fuxe, K; and J. Smythies “Life without glutamate: the epigenetic effects of glutamate deletion,” *Frontiers in Molecular Neuroscience*, 2014, 7:14. doi: 10.3389/fnmol.2014.00014 [Open Access Link: www.frontiersin.org/Molecular_Neuroscience/10.3389/fnmol.2014.00014/full]

Hinova-Palova, D.V.; Edelstein, L.; Landzhov, B.V.; Braak, E.; Malinova, L.G.; Minkov, M.; Paloff, A.; and W. Ovtcharoff “Parvalbumin-immunoreactive neurons in the human claustrum,” *Brain Structure and Function*, 2014, 219/5:1813-1830. DOI 10.1007/s00429-013-0603-x

Hinova-Palova, D.V.; Edelstein, L.; Landzhov, B; Minkov, M; Malinova, L; Hristov, S; Denaro, F.J.; Alexandrov, A; Kiriakova, T; Brainova, I; Paloff, A.,; and W. Ovtcharoff “Topographical distribution and morphology of NADPH-diaphorase-stained neurons in the human claustrum,” *Frontiers in Systems Neuroscience*, 2014, 8:96. doi: 10.3389/fnsys.2014.00096 [Open Access Link: <http://journal.frontiersin.org/Journal/10.3389/fnsys.2014.00096/full>]

Hinova-Palova, D.V.; Landzhov, B.; Dzhambazova, E.; Minkov, M.; Edelstein, L.; Malinova, L.; Paloff, A.; and W. Ovtcharoff “Neuropeptide Y immunoreactivity in the cat claustrum: a light- and electron-microscopic investigation,” *Journal of Chemical Neuroanatomy*, 2014, 61-62:107-119 [http://dx.doi.org/10.1016/j.jchemneu.2014.08.007]

Smythies, J., and L. Edelstein “Telocytes, exosomes, gap junctions and the cytoskeleton: the makings of a primitive nervous system?” *Frontiers in Cellular Neuroscience*, 2014, 7:278. doi: 10.3389/fncel.2013.00278 [Open Access Link: www.frontiersin.org/Cellular_Neuroscience/10.3389/fncel.2013.00278/full]

Smythies, J., and L. Edelstein “The desferrioxamine-prochlorperazine coma - clue to the role of dopamine-iron recycling in the synthesis of hydrogen peroxide in the brain,” *Frontiers in Molecular Neuroscience*, 2014, 7:74. doi: 10.3389/fnmol.2014.00074 [Open Access Link: <http://journal.frontiersin.org/Journal/10.3389/fnmol.2014.00074/full>]

Smythies, J.; Edelstein, L.; and V. Ramachandran “Hypotheses relating to the function of the claustrum II: instructional oscillations and dendritic integration,” *Frontiers in Integrative Neuroscience*, 2014, 8:7. doi: 10.3389/fnint.2014.00007 [Open Access Link: www.frontiersin.org/Integrative_Neuroscience/10.3389/fnint.2014.00007/full]

Smythies, J.; Edelstein, L.; and V. Ramachandran “Molecular mechanisms for the inheritance of acquired characteristics - exosomes, microRNA shuttling, fear and stress: Lamarck resurrected?” *Frontiers in Genetics*, 2014, 5:133. doi: 10.3389/fgene.2014.00133 [Open Access Link: <http://journal.frontiersin.org/Journal/10.3389/fgene.2014.00133/full>]

Edelstein, L., and J. Smythies “Hypotheses concerning how Otx2 makes its incredible journey: a hitchhiker on the road to Rome?” *Frontiers in Molecular Neuroscience*, 2013, 6:55. doi: 10.3389/fnmol.2013.00055 [Open Access Link: www.frontiersin.org/Molecular_Neuroscience/10.3389/fnmol.2013.00055/full]

Edelstein, L., and J. Smythies “Spike dynamic and epigenetic malfunctions in epilepsy: a tale of two codes,” *Frontiers in Neurology*, 2013, 4:63. doi: 10.3389/fneur.2013.00063 [Open Access Link: www.frontiersin.org/Epilepsy/10.3389/fneur.2013.00063/full]

Hinova-Palova, D.; Edelstein, L.; Landzhov, B.; Minkov, M.; Malinova, L.; Alexandrov, A.; Hristov, S.; Paloff, A.; and W. Ovtcharoff “Light microscopic immunocytochemical identification of leucine enkephalin in human claustrum,” *Scripta ScientificaMedica*, 2013, 45/S1: 23-28.

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Malinova, L.; Landzhov, B.; Bozhilova-Pastirova, A.; Hinova-Palova, D.; Minkov, M.; Edelstein, L.; Paloff, A.; and W. Ovtcharoff “CB1 receptors in the thalamic reticular nucleus during acute immobilization stress of the rat: an immunohistochemical study,” *Scripta ScientificaMedica*, 2013, 45/S1: 43-46.

Smythies, J., and L. Edelstein “Interactions between the spike code and the epigenetic code during information processing in the brain.” *Frontiers in Molecular Neuroscience*, 2013, 6:17. doi: 10.3389/fnmol.2013.00017 [Open Access Link: www.frontiersin.org/Molecular_Neuroscience/10.3389/fnmol.2013.00017/full]

Smythies, J., and L. Edelstein “Transsynaptic modality codes in the brain: possible involvement of synchronized spike timing, microRNAs, exosomes and epigenetic processes,” *Frontiers in Integrative Neuroscience*, 2013, 6:126. doi: 10.3389/fnint.2012.00126 [Open Access Link: www.frontiersin.org/integrative_neuroscience/10.3389/fnint.2012.00126/full]

Hinova-Palova, D.; Edelstein, L.; Papantchev, V.; Landzhov, B.; Malinova, L.; Todorova-Papantcheva, D.; Minkov, M.; Paloff, A.; and W. Ovtscharoff “Light- and electron-microscopic study of leucine enkephalin immunoreactivity in the cat claustrum,” *Journal of Molecular Histology*, 2012, 43/6: 641-649.

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Smythies, J; Edelstein, L; and V.S. Ramachandran “Hypotheses relating to the function of the claustrum,” *Frontiers in Integrative Neuroscience*, 2012, 6:53. doi: 10.3389/fnint.2012.00053 [Open Access Link: www.frontiersin.org/integrative_neuroscience/10.3389/fnint.2012.00053/full]

Smythies, J; Edelstein, L; and V.S. Ramachandran “The functional anatomy of the claustrum: the net that binds,” *WebmedCentral Neurosciences*, 2012, 3(3): WMC003182 [Open Access Link: www.webmedcentral.com/article_view/3182] 2009-1981 (8)

Kowianski, P; Dziewiatkowski, J.; Morys, J.M.; Majak, K.; Wojcik, S.; Edelstein, L.R.; Lietzau, G.; and J. Morys “Colocalization of neuropeptides with calcium-binding proteins in the claustral interneurons during postnatal development of the rat,” *Brain Research Bulletin*, 2009, 80/3: 100-106.
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Hinova-Palova, D.V.; Edelstein, L.R.; Paloff, A.M.; Hristov, S.; Papantchev, V.G.; and W.A. Ovtscharoff “Neuronal nitric oxide synthase immunopositive neurons in cat claustrum - a light and electron microscopic study,” *Journal of Molecular Histology*, 2008, 39/4: 447-457.

Hinova-Palova, D.V.; Edelstein, L.R.; Paloff, A.M.; Hristov, S.; Papantchev, V.G.; and W.A. Ovtscharoff “Parvalbumin in the cat claustrum: Ultrastructure, distribution and functional implications,” *Acta Histochemica*, 2007, 109/1: 61-77.

Edelstein, L.R., and F.J. Denaro “The claustrum: a historical review of its anatomy, physiology, cytochemistry and functional significance,” *Cellular and Molecular Biology*, 2004, 50/6: 675-702.

Edelstein, L.R., and F.J. Denaro “The neurobiology of consciousness and Sir Francis Crick,” *Cellular and Molecular Biology*, 2004, 50/6: 671-673.

Ruiz, M. T.; Edelstein, L.R.; and F. J. Denaro "Immunocytochemical detection of a ceruloplasmin-like substance in the human substantia nigra," *Journal of Histochemistry*, 1999, 22/4: 295-299.

Partin, J.S.; Lane, B.P.; Partin, J.C.; Edelstein, L.R.; and C.J. Priebe, Jr. "Plexiform neurofibromatosis of the liver and mesentery in a child," *Hepatology*, 1990, 12/3: 559-564.

Labuszewski, T.; Lockwood, R.; McManus, F.E.; Edelstein, L.R.; and T.I. Lidsky "Role of postural deficits in oro-ingestive problems caused by globus pallidus lesions," *Experimental Neurology*, 1981, 74/1: 93-110.

Books and Theme Issues

Smythies, J.; Edelstein, L.; and D. Noble (Eds.). Theme Issue - "Epigenetic Information-processing Mechanisms in the Brain." *Philosophical Transactions of the Royal Society of London B*, 2014, 369 (1652)
[<http://rstb.royalsocietypublishing.org/content/369/1652>]

Smythies, J.R.; Edelstein, L.R.; and V.S. Ramachandran (Eds.). *The Claustrum - Structural, Functional and Clinical Neuroscience*. Oxford: Elsevier, 2014, 408pp.

Book Chapters

Okuno, H.; Smythies, J.; and L. Edelstein. "Selected areas for future research on the claustrum," In: J.S. Smythies, L.R. Edelstein and V.S. Ramachandran (Eds.), *The Claustrum - Structural, Functional and Clinical Neuroscience*. Oxford: Elsevier, 2014, pp. 365-376.

Smythies, J.; Edelstein, L.; and V.S. Ramachandran. "Hypotheses relating to the function of the claustrum," In: J.R. Smythies, L.R. Edelstein and V.S. Ramachandran (Eds.), *The Claustrum - Structural, Functional and Clinical Neuroscience*. Oxford: Elsevier, 2014, pp. 299-352.

Meeting Abstracts

Edelstein, L.; Denaro, F.; Hinova-Palova, D.V.; Landzhov, B.; Minkov, M.; Malinova, L.; Paloff, A.; and W. Ovtcharoff "Morphology and topographical distribution of NADPH-diaphorase-labeled neurons and fibers in the human inferior colliculus," *Society for Neuroscience, 44th Annual Meeting, 2014, #446.21*

Edelstein, L.; Denaro, F.; Landzhov, B.; Dzhambazova, E.; Malinova L.; Hinova-Palova, D.; Paloff, A.; and W. Ovtcharoff "Alteration of CB1 receptor density in the amygdala by kyotorphin," *Society for Neuroscience, 44th Annual Meeting, 2014, #447.09*

Edelstein, L.; Denaro, F.; Davis, H.; Davinelli, S.; Curreli, S.; Benedetti, F.; Krishnan, S.; Scapagnini, G.; Zella, D.; and J. Bryant "A new pediatric model of neuroAIDS: the HIV-1 transgenic rat," *Society for Neuroscience, 43rd Annual Meeting, 2013, #727.10*

Talk, A.; Bernasconi, D.; Stevens, Z.; Grasby, K.; Edelstein, L.; Smythies, J.; and B. Russell "The anterior claustrum and flexible behavior in the rat: a comparison of

NMDA and dynorphin-saporin lesions,” Society for Neuroscience, 43rd Annual Meeting, 2013, #574.20

Edelstein, L.; Hinova-Palova, D.; Denaro, F.; Landzhov, B.; Malinova, L.; Minkov, M.; Paloff, A.; and W. Ovtsharoff “NADPH-diaphorase-positive neurons in the human claustrum,” Society for Neuroscience, 42nd Annual Meeting, 2012, #895.20

Edelstein, L.; Hinova-Palova, D.; Landzhov, B.; Malinova, L.; Minkov, M.; Paloff, A.; and W. Ovtsharoff “Neuronal nitric oxide synthase immunoreactivity in the human claustrum: light- and electron microscopic investigation,” Society for Neuroscience, 42nd Annual Meeting, 2012, #895.21

Hinova-Palova, D.; Edelstein, L.; Landzhov, B.; Minkov, M.; Malinova, L.; Paloff, A.; and W. Ovtsharoff “Light-microscopic immunocytochemical identification of leucine enkephalin in the human claustrum,” Jubilee Symposium - 50 Years of the Department of Anatomy, Histology and Embryology, November 1st-2nd 2012, Medical University of Varna, Bulgaria

Hinova-Palova, D.; Edelstein, L.; Landzhov, B.; Minkov, M.; Malinova, L.; Alexandrov, A.; Paloff, A.; and W. Ovtsharoff “Light microscopic immunocytochemical identification of NPY in human claustrum,” XXI National Congress of the Bulgarian Anatomical Society, Sofia, 2012

Landzhov, B.; Dzhambazova, E.; Malinova, L.; Edelstein, L.; Bozhilova-Pastirova, A.; Hinova-Palova, D.; Minkov, M.; Paloff, A.; and W. Ovtsharoff “Immunohistochemical study on the distribution of cannabinoid-CB1 receptors in the rat’s somatosensory cortex after cold stress procedure,” Jubilee Symposium - 50 Years of the Department of Anatomy, Histology and Embryology, November 1st-2nd 2012, Medical University of Varna, Bulgaria

Malinova, L.; Landzhov, B.; Bozhilova-Pastirova, A.; Hinova-Palova, D.; Minkov, M.; Edelstein, L.; Paloff, A.; and W. Ovtsharoff “CB1 receptors in the thalamic reticular nucleus during acute immobilization stress of the rat: an immunohistochemical study,” Jubilee Symposium - 50 Years of the Department of Anatomy, Histology and Embryology, November 1st-2nd 2012, Medical University of Varna, Bulgaria 2011 (3)

Edelstein, L.; Denaro, F.; Stamm, J.; Landzhov, B.; Malinova, L.; Hinova-Palova, D.; Paloff, A.; Bozhilova-Pastirova, A.; Dzhambazova, E.; Bocheva, A.; and W. Ovtsharoff “Distribution of CB1 receptors in the claustrum of rats undergoing acute stress: an immunohistochemical study,” Society for Neuroscience, 41st Annual Meeting, 2011, #734.12

Edelstein, L.; Hinova-Palova, D.; Malinova, L.; Papantchev, V.; Landzhov, B.; Paloff, A.; and W. Ovtsharoff “Distribution of neuropeptide Y immunoreactivity in the dorsal claustrum of the cat: light- and electron-microscopic identification of distinct neuronal populations,” Society for Neuroscience, 41st Annual Meeting, 2011, #817.19

Edelstein, L.; Denaro, F.; Malinova, L.; Landzhov, B.; Bozhilova-Pastirova, A.; Hinova-Palova, D.; Paloff, A.; and W. Ovtsharoff “NMDA receptor-specific sex

differences in the thalamic reticular nucleus of the rat," Society for Neuroscience, 41st Annual Meeting, 2011, #734.13

Edelstein, L.; Cozzi, B.; Castagna, M.; Quilici, F.; Lenzi, C.; Piano, I.; and A. Pirone "Parvalbumin and neuropeptide Y immunoreactivity in the human claustrum," Society for Neuroscience, 40th Annual Meeting, 2010, #900.1

Edelstein, L.; Dontchev, V.; Bocheva, A.; Bozhilova-Pastirova, A.; and W. Ovtsharoff "Changes in the expression of nitric oxide synthase in rat periaqueductal gray following different stress conditions," Society for Neuroscience, 40th Annual Meeting, 2010, #845.4

Edelstein, L.; Druga, R.; Stamm, J.; Cerman, J.; and M. Salaj "Calretinin immunoreactivity in the rat and guinea pig claustrum," Society for Neuroscience, 40th Annual Meeting, 2010, #900.2

Edelstein, L.; Hinova-Palova, D.; Paloff, A.; Papantchev, V.; and W. Ovtsharoff "Leu-enkephalin immunoreactivity in the cat claustrum: light and electron microscopic investigation," Society for Neuroscience, 40th Annual Meeting, 2010, #900.3
2008-1979 (5)

Edelstein, L.R., and F.J. Denaro "Touching consciousness: Crick and the claustrum," Society for Neuroscience, 38th Annual Meeting, 2008, #221.4

Edelstein, L.R., and F.J. Denaro "The immunohistochemical localization of a ceruloplasmin-like substance in the human central nervous system," Society for Neuroscience, 17th Annual Meeting, 1987, 13/2: 1360 (#376.6)

Edelstein, L.R., and F.J. Denaro "The rat claustrum: A light- and electron-microscopic analysis," Society for Neuroscience, 10th Annual Meeting, 1980, 6: 735 (#247.25)

Edelstein, L.R., and F.J. Denaro "The monkey claustrum: An electron-microscopic analysis," Society for Neuroscience, 9th Annual Meeting, 1979, 5: 428 (#1444)

Labuszewski, T.; Edelstein, L.R.; Federchuck, B.; Lederman, D.; and T.I. Lidsky "Sensorimotor deficits caused by globus pallidus lesions," Society for Neuroscience, 9th Annual Meeting, 1979, 5: 74 (#243)

Doctoral Thesis

Edelstein, L.R. "The Anatomy of the Claustrum: A Light- and Electron-microscopic Analysis in Rat and Monkey Incorporating the Technique of HRP Cytochemistry," Doctoral Dissertation, SUNY at Stony Brook, New York, October 1986, 293pp.

Invited Talks 2012

The Claustrum (UC San Diego, Department of Psychology, Center for Brain and Cognition; August 29th, 2012)
2011

The Claustrum (FRIAS Symposium, "Processing along dorsal and ventral streams in the brain," Department of Neurology, University of Freiburg, Germany; October 13th and 14th, 2011)

Ad-hoc Reviewer

Frontiers in Systems Neuroscience (www.frontiersin.org/Systems_Neuroscience)

Human Brain Mapping ([http://onlinelibrary.wiley.com/journal/10.1002/\(ISSN\)1097-0193](http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1097-0193))

Physiological Research (www.biomed.cas.cz/physiolres)

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