

# HELI-KRISTY KULTAS-ILINSKY

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## I Personal Data

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## II Education

1954-59 Faculty of Biology, Department of Histology and Histochemistry, Moscow State University  
Diploma, 1959 (equivalent of M.S.)

1961-64 Brain Institute of the Academy of Medical Sciences, Moscow, Graduate studies in  
Neuroanatomy and Neurochemistry

1965 Ph.D. Brain Institute of the Academy of Medical Sciences, Moscow. Dissertation:  
*"Histochemical study of oxidative enzymes in different types of neurons and glia in the cortex  
and the brain stem of the rabbit."*

## III Academic Appointments

1959-61 Junior Researcher (equivalent of Assistant Professor), Institute of Experimental Biology,  
Academy of Sciences of Estonia, Tallinn

1965-74 Senior Researcher (equivalent of Associate Professor), Head of Research Group, Laboratory  
of the Structure and Function of Synapses, Institute of Biophysics of Academy of Sciences of  
the USSR, Pushchino-on-the-Oka

1975(Feb-Aug) Research Associate, Department of Biomechanics, College of Osteopathic Medicine,  
Michigan State University, East Lansing, Michigan

1975-1982 Assistant Professor of Anatomy, St. Louis University School of Medicine

1982-1989 Associate Professor of Anatomy, The University of Iowa College of Medicine

1989-2001 Professor of Anatomy, The University of Iowa College of Medicine

1986-2001 Faculty Interdepartmental Neuroscience Program, The University of Iowa

2002- present Emeritus Professor of Anatomy and Cell Biology, The University of Iowa

## IV Professional Affiliations

Society for Neuroscience  
American Association of Anatomists  
European Neuroscience Association  
International Basal Ganglia Society  
IBRO

## Areas of Research Interest

Neuroanatomical and transmitter organization of the thalamus and basal ganglia

## VI Teaching Activities - Classroom

Institute of Biophysics, Academy of Sciences of the USSR:  
1967-74 -Neuroanatomy for neuroscience graduate students

St. Louis University School of Medicine:  
1978/79 - Medical Neuroanatomy  
1976/1977, 1977/78, 1979/80, 1980/81, 1981/82 - Medical/Dental Histology  
Dental Histology Course Director - 1979/1980 academic year  
Graduate Course Directorsip: Seminar, 1978/1979; Journal Club, 1978/1979

The University of Iowa:  
Medical/Dental Histology 1982/1983, 1983/1984, 1985/1986  
Graduate Student Seminar/Journal Club - 1978/1979  
Medical Neuroanatomy/Neuroscience - 1986/1987, 1987/1988, 1988/1989, 1989/1990  
Medical/Graduate Neuroscience, Course director - 1991/1992, 1992/1993, 1993/1994  
Medical/Graduate Neuroscience, 1994-1997, 1998-2001  
Human Organ Systems, 1996, 2001

## VII Other Professional Activities

Coordinator of Departmental Seminars, 1984-1985  
Grant Reviewer for Medical Res. Council, England, 1999  
Grant Reviewer for Research Grants Council, Hong Kong, 2000  
Consultant for Inamori Foundation, Kyoto, Japan  
Reviewer for: "Neuroscience Letters",  
"Journal of Neurochemistry"  
"Experimental Brain Research"  
"Trends in Neuroscience"  
"Neuroscience"  
"Experimental Neurology"  
"Brain Research Bulletin"  
"Journal of Neuroscience"  
"Journal of Comparative Neurology"  
Organizer of the International Workshop on the "Thalamus and Basal Ganglia in Health and Movement Disorders, May 2001, Moscow, Russia.

## Collegiate, University, University Hospitals, and National Committees

Graduate Committee, University of Iowa, Department of Anatomy, 1982-83, 1991-1995  
Comprehensive Exam Committee, University of Iowa, Department of Anatomy, 1982-83  
Faculty Welfare Committee of the University of Iowa, 1983-1986  
Neurology Department Review and Search for Head Committee, 1984-86  
Anatomy Department Faculty Search Committee, 1985-1986  
University of Iowa Image Analysis Facility Advisory Committee, 1985-1988  
Medical Scientist Training Program Recruiting Committee, 1986-1987  
Dept. of Anatomy Comprehensive Exam Committee, Chair, 1988-1990

Curriculum Committee for the University of Iowa Neuroscience Program, 1986-present  
 College of Medicine Admissions Committee, 1988-1990  
 Consultant: Program Project "Amino Acid and Peptide Transmitters in the Motor System." P.I. Sid Gilman, M.D., Dept. of Neurol., Univ. of Michigan, Ann Arbor, Michigan, 1989  
 Neurology A Study Section NINDS, 1986-1990.  
 NIH reviewers reserve, 1990-1994  
 Ad hoc reviewer in NINDS Program Projects site visit teams  
 University of Iowa Department of Neurology Review Committee 1992-93  
 University of Iowa Department of Anatomy Course Directors Committee 1992-1994  
 University of Iowa Department of Anatomy Space and Resource Committee Chair 1993-1995  
 College of Medicine Research Committee 1995-1998  
 College of Medicine Fiberoptics Communications Committee, 1996  
 Department of Anatomy Faculty Recruiting Committee, 1996  
 Comprehensive Exam Committee 1999-2001

Invited speaker:

1977 Department of Neurosurgery, St. Louis University School of Medicine  
 1978 Department of Neurology, St. Louis University School of Medicine  
 1979 Department of Physiology, St. Louis University School of Medicine  
 1980 Department of Anatomy, University of California, Irvine  
 1981 Department of Pharmacology, St. Louis University School of Medicine  
 1982 Department of Neurology, The University of Iowa College of Medicine  
 1983 Laboratoire de Physiologie des Centres Nerveux, Université, Pierre et Marie Curie, Paris, France  
 1985 Laboratorio di Fisiologia di Centri Nervosi di CNR, Milano, Italy  
 1987 University of Maryland Psychiatric Research Center, Baltimore  
 1987 Satellite Symposium to the 2nd International Brain Research Organization Congress, "Cellular thalamic mechanisms" Verona, Italy  
 1988 Department of Neurology, The University of Iowa College of Medicine  
 1989 Department of Anatomy, University of Verona, Verona, Italy.  
 1990 Dept. of Anatomy, University of Iowa College of Medicine, Iowa City, Iowa  
 1991 Georgetown Fidia Neuroscience Research Institute, Washington, D.C.  
 1991 Laboratory of Neurophysiology, Rockefeller University, New York, N.Y.  
 1991 Tenth International Symposium on Parkinson's Disease, Tokyo, Japan  
 1991 C. Besta Institute of Neurology, Milano, Italy  
 1992 Symposium on Thalamic Networks on Relay and Modulation, Rome, Italy  
 1993 Symposium on Modern Techniques in Tissue Biology, Sheffield, England, in association with the Annual meeting of the Anatomical Society of Great Britain and Ireland  
 1996 INSERM U318, Dept. Neurosurgery, University of Grenoble, Grenoble, France.  
 1996 INSERM U106, Dept. of Pediatrics, Hôpital de Salpêtrière, Paris, France  
 1996 Dept. of Psychiatry, University of Iowa  
 1996 3d International GABA<sub>B</sub> Symposium, Baia Praelios, Italy  
 1998 4<sup>th</sup> International GABA<sub>B</sub> Symposium, Los Angeles, CA

VIII Financial Resources (Grants and Contracts)

A. Federal (amounts shown reflect direct costs only)

Cerebellothalamic system: motor and cognitive circuits, 7/1/1997-10/31/2001, NIH, \$687,706, Co-investigator.

Thalamic GABAergic systems in dyskinetic disorders, 04/01/1993-03/31/1998, NIH, \$543,708. Principal Investigator.  
 Synaptic organization of the primate thalamus, 07/1991-11/1995, NIH \$415,036. Co-inv.  
 Connections of the reticular thalamic nucleus, 10/1991-9/1994, NSF, 198,423. Co-inv.  
 Thalamic GABAergic systems in dyskinetic disorders, 09/1992-08/1994, Shannon Award, NIH, \$80,000, Principal Investigator  
 Connections of the primate motor thalamus, NIH, 4/88 - 3/91, \$265,877, Principal Investigator.  
 Thalamic plasticity induced by lesions in basal ganglia, NIH, 4/1988 - 9/1991, \$244,487. Pr.Inv.  
 Synaptic organization of the primate motor thalamus. NIH 1/1987-12/30/1990, \$331,302. Co-inv.  
 Thalamic plasticity induced by lesions in basal ganglia. NIH 12/1984-11/1987, \$327,420. Pr.Inv.  
 Thalamic plasticity induced by lesions in basal ganglia. NIH 9/1981 - 9/1984, \$124,930. Pr.Inv.  
 A stereotaxic atlas based on intracerebral landmarks. NIH, 7/1980 - 6/1982, \$52,630. Co-inv.  
 The fine structure of synaptic organization of the ventral tier nuclei in the rat. BRSG, 10/1975 - 9/76, \$10,795. Principal Investigator.

B. Private

Autoradiographic study of GABA receptor binding in the cat thalamus after deafferentation from substantia nigra. American Parkinson Disease Assoc. 1984-1985, \$20,300. Principal Investigator  
 Autoradiography of receptor binding in the cat thalamus. Am. Philosophical Soc. 4/1983-4/1984, \$2,250. Principal Investigator.  
 Synaptic organization of thalamic inputs from the basal ganglia and cerebellum: An experimental light and electron microscopical study in the cat. The American Parkinson Disease Association, 7/1980 - 12/1981, \$10,000. Co-investigator.

IX. Bibliography ( total 72 full size papers including book chapters plus 72 abstracts in the Proceedings of conferences).

**Papers published**

1. Kultas, K. Cytological and cytochemical changes in neurons of the chicken tectum opticum under the influence of continual light. In: Studies on Animal Physiology. (In Russian) Academy of Sciences of the Estonian SSR, Tallinn, pp. 85-93, 1964.
2. Kultas, K. A cytochemical investigation of the distribution of succinic dehydrogenase and glycerophosphate dehydrogenase in Deiters' nucleus of the rabbit. (In Russian) Cytologia 6:452-457, 1964.
3. Kultas, K. The distribution of oxydative enzymes in glial and nerve cells in the temporal cortex of the rabbit brain. (In English) Folia Morphologica 13:43-50, 1965.
4. Kultas, K. The distribution of succinic dehydrogenase and glycerophosphate dehydrogenase in structural elements of Deiter's nucleus of the rabbit. (In Russian) In: Structure and Function of the Nervous System. Moscow, Medicina, pp. 185-191, 1965.
5. Kultas, K., N. Potapina and O.S. Vinogradova. AChE distribution in structures of hippocampal formation in the rabbit. (In Russian) Arkhiv. Anat. Gistol. Embriol. 57:33-39, 1969.
6. Kultas, K., N. Potapina and O.S. Vinogradova. AChE distribution in structures of hippocampal formation in the rabbit. (In English) Neuro. Trans. 13, 1970-1971.

7. Kuznetsov, V., K. Kultas, M. Karanova and V. Novoselov. On biochemical differences of regio superior and regio inferior of the hippocampus. (In Russian) In: Memory and Trace Phenomena, Proceedings of the Second Conference on Memory Problems, Pushchino-on-the-Oka, pp. 99-102, 1972.
8. Vinogradova, O.S., T. Semenova, V., Konovalov and K. Kultas. Trace phenomena and the limbic system. In: Gagrskie Besedy, Tbilisi, Vol. 6, pp 352-272, 1972.
9. Karanova, M. and K. Kultas. The activity of cholinesterases in different regions of the rabbit hippocampal formation. (In Russian) *Izvestia Akadem. Nauk SSSR [Biol. Ser. No. 1]* 120-122, 1973.
10. Kultas, K., M. Karanova, T. Shchipakina and Z. Zhuravleva. Morphological and biochemical investigation of subcellular fractions of the rabbit hippocampal formation. (In Russian) *Cytologia* 15:1011-1016, 1973.
11. Shchipakina, T. and K. Kultas. Glutamicdecarboxylase activity in the structures of the brain limbic system. (In Russian) *Ukr. Biochim. Zhurn.* 45: 174-176, 1973.
12. Jurchenko, O., K. Kultas and C. Vulfius. Cholinesterase activity in ganglia of gastropoda, lymnea stagnalis and planorbarius corneus II. Histochemical investigation. (In English) *Comparative Biochem. Physiol.* 45A:66-68, 1973.
13. Kultas, K. The cholinergic mechanisms of hippocampal formation.(In Russian)In: Limbic System of the Brain: Neurochemical and Neurophysiological Research, Pushchino-on-the-Oka, pp. 61-68, 1973.
14. Kultas, K., M. Karanova, T. Shchipakina and Z. Zhuravleva. Biochemical and morphological investigation of subcellular fractions of rabbit limbic structures (In Russian) In: Limbic System of the Brain: Neurochemical and Neurophysiological Research, Pushchino-on-the-Oka, pp. 83-102, 1973.
15. Kultas, K., Z. Zhuravleva, M. Karanova and T. Shchipakina. Electron microscopical localization of AChE in subcellular fractions of rabbit hippocampal formation different regions. (In Russian) *Izvestia Akadem. Nauk SSSR [Biol. Ser. No. 1]* 48-55, 1974.
16. Shchipakina, T. and K. Kultas. The activity of glutamate decarboxylase in subcellular fractions of rabbit limbic structures. *Ukr. Biochim. Zhurn.* 46:41-45, 1974.
17. Kultas, K., T. Smolikhina, E. Brazhnik and O.S. Vinogradova. The influence of septal afferents coagulation on the activity of acetylcholinesterase in short-axon neurons of the hippocampus. (In Russian) *Doklady Adademii Nauk SSSR* 214:462-463, 1974.
18. Ilinsky, I.A., K. Kultas-Ilinsky and K.R. Smith. A stereotaxic method based on ventricular radiography in the cat (with special reference to the stereotaxic topography of the Substantia Nigra). *Exp. Brain Res.* 33:469-480, 1978.
19. Kultas-Ilinsky, K., I.A. Ilinsky, L.C. Massopust, P.A. Young and K.R. Smith. Nigrothalamic pathway in the cat demonstrated by autoradiography and electron microscopy. *Exp. Brain Res.* 33:481-492, 1978.
20. Kultas-Ilinsky, K., I.A. Ilinsky, P.A. Young and K.R. Smith. Ultrastructure of degenerating cerebellothalamic terminals in the ventral medial nucleus of the cat. *Exp. Brain Res.* 38:125-135, 1980.
21. Kultas-Ilinsky, K., S. Warton, D.L. Tolbert and I.A. Ilinsky. Quantitative and qualitative characteristics of dentate and fastigial afferents identified by electron microscopic autoradiography in the cat thalamus. *Brain Res.* 201:220-226, 1980.

22. Tolbert, D.L., K. Kultas-Ilinsky and I.A. Ilinsky. EM-autoradiography of cerebellar nucleocortical terminals in the cat. *Anat. Embryol.* 161:215-223, 1980.
23. Ilinsky, I.A., K. Kultas-Ilinsky, P.A. Young and K.R. Smith. Stereotaxic neurosurgery in experimental animals. Use of intracerebral landmarks and an atlas of the cat brain. *Appl. Neurophysiol.* 43:269-289, 1980.
24. Cospito, J.A. and K. Kultas-Ilinsky. Synaptic organization of motor corticostriatal projections in the rat. *Exp. Neurol.* 72:257-266, 1981.
25. Ilinsky, I.A., K. Kultas-Ilinsky and K.R. Smith. Organization of basal ganglia inputs to the thalamus. Light and electron microscopic study in the cat. *Appl. Neurophysiol.* 45:230-237, 1982.
26. Ilinsky, I.A. and K. Kultas-Ilinsky. Stereotactic surgery in the Rhesus monkey (*Macaca mulatta*) utilizing intracerebral landmarks. *Appl. Neurophysiol.* 45:563-572, 1982.
27. Kultas-Ilinsky, K., I. Ilinsky, S. Warton and K.R. Smith. Fine structure of nigral and pallidal afferents in the thalamus: An EM autoradiography study in the cat. *J. Comp. Neurol.* 216:390-405, 1983.
28. Warton, S., D.G. Jones, I.A. Ilinsky and K. Kultas-Ilinsky. Nigral and cerebellar synaptic terminals in the intermediate and deep layers of the cat superior colliculus revealed by lesioning studies. *Neuroscience*, 10:789-800, 1983.
29. Ilinsky, I.A. and K. Kultas-Ilinsky. An autoradiographic study on topographical relationships between pallidal and cerebellar projections to the cat thalamus. *Exp. Brain Res.* 54:95-106, 1984.
30. Kultas-Ilinsky, K., C.E. Ribak, G.M. Peterson and W.H. Oertel. A description of the GABAergic neurons and axon terminals in the motor nuclei of the cat thalamus. *J. Neuroscience* 5:1346-1369, 1985.
31. Miniciacchi, D., M. Bentivoglio, K. Kultas-Ilinsky, I. Ilinsky, and G. Macchi. Multiple cortical targets of one thalamic nucleus: the projections of the ventral medial nucleus in the cat studied with retrograde tracers. *J. Comp. Neurol.* 252:106-129, 1986.
32. Kultas-Ilinsky, K. and I.A. Ilinsky. Neuronal and synaptic organization of the motor nuclei of mammalian thalamus. Invited review in a series "Current Topics in Research on Synapses", Edited by D.G. Jones, Alan Liss, Inc. NY. Vol 3. 3:77-145, 1986.
33. Kultas-Ilinsky, K., I.A. Ilinsky, A. Rosina and M. Haddy. Quantitative evaluation of crossed versus uncrossed projections of basal ganglia and cerebellum to the cat thalamus. *Neuroscience* 21:207-227, 1987.
34. Ilinsky, I.A. and K. Kultas-Ilinsky: Sagittal cytoarchitectonic maps of the *Macaca mulatta* thalamus with a revised nomenclature of the motor-related nuclei validated by observations on their connectivity. *J. Comp. Neurol.* 262:331-364, 1987.
35. Kultas-Ilinsky, K., J.D. Fogarty, B. Hughes and I.A. Ilinsky. Distribution and binding parameters of GABA and benzodiazepine receptors in the cat motor thalamus and adjacent nuclear groups: *Brain Res.* 459:1-16, 1988.
36. Kultas-Ilinsky, K. and I.A. Ilinsky: GABAergic systems of the feline motor thalamus: Neurons, synapses and receptors. In: "Cellular thalamic mechanisms", Edited by R. Spreafico and M. Bentivoglio, Elsevier 1988, pp. 349-363.

37. Kultas-Ilinsky, K., B. Hughes, J.D. Fogarty, I.A. Ilinsky. GABA and benzodiazepine receptors in the cat motor thalamus after lesioning of nigro- and pallidothalamic pathways. *Brain Research*, 511:197-208, 1990.
38. Ilinsky, I. and K. Kultas-Ilinsky. Fine structure of the magnocellular subdivision of the ventral anterior thalamic nucleus (VAmc) of *Macaca mulatta*. I. Cell types and synaptology. *J. Comp. Neurol.* 294:455-478, 1990.
39. Kultas-Ilinsky, K. and I.A. Ilinsky. Fine structure of the magnocellular subdivision of the ventral anterior thalamic nucleus (VAmc) of *Macaca mulatta*. II. Ultrastructural organization of the nigrothalamic pathway. *J. Comp. Neurol.* 294:479-489, 1990.
40. Kultas-Ilinsky, K. and I.A. Ilinsky. Fine structure of the ventral lateral nucleus of the *Macaca mulatta* thalamus: Cell types and synaptology. *J. Comp. Neurol.*, 314:319-349, 1991.
41. Kultas-Ilinsky, K., T. Deboom and I.A., Ilinsky. Synaptic reorganization in the feline ventral anterior thalamic nucleus (VA) induced by lesions in the basal ganglia. *Exp. Neurol.*, 116:312-329, 1992.
42. Slobodyansky, E., G. Kurriger and K. Kultas-Ilinsky. Diazepam binding inhibitor processing in the Rhesus monkey brain: An immunocytochemical study. *J. Chem. Neuroanat.*, 5:169-180, 1992.
43. Ilinsky, I.A., W.G. Tourtellotte and K. Kultas-Ilinsky. Anatomical distinctions between the two basal ganglia afferent territories in the primate motor thalamus, *Stereotact. Funct. Neurosurg.*, 60:62-69, 1993.
44. Bentivoglio, M., H.K. Kultas-Ilinsky and Igor Ilinsky. The limbic thalamus: structure, intrinsic organization and connections. In: B. Vogt and M. Gabriel (Eds.). "Biology of cingulate cortex and limbic thalamus" Birkhauser, Boston/Basel. 41-122, 1993.
45. Kultas-Ilinsky, K., T. DeBoom and I. Ilinsky. Interspecies comparison of expression of GABA/benzodiazepam receptors and their subunits in the motor and limbic nuclei of the thalamus. In: D. Minniciachi, M. Molinari and E. Jones (Eds.). "Thalamic Networks for Relay and Modulation", Elsevier, 291-298, 1993.
46. Ilinsky, I., A. Toga and K. Kultas-Ilinsky. Anatomical organization of internal thalamic circuits in the nuclei of the motor thalamus. In: D. Minniciachi, M. Molinari and E. Jones (Eds.). "Thalamic Networks for Relay and Modulation", Elsevier, 155-164, 1993.
47. Kultas-Ilinsky K. and I.A. Ilinsky. Basal Ganglia, Chapter in the Neuroscience (textbook), M. Conn (Ed.) by J.B. Lippincot Co., Philadelphia, 1994.
48. Ilinsky, I. and Kultas-Ilinsky, K. The Thalamus, Chapter in Neuroscience (textbook), M. Conn (Ed.) by J.B. Lippincott Co., Philadelphia, 1994.
49. Kultas-Ilinsky, K., H. Yi and I.A. Ilinsky. Nucleus reticularis thalami input to the anterior thalamic nuclei in the monkey: a light and electron microscopic study. *Neurosci. Letts.* 186:25-28, 1995.
50. Tai, Y., H. Yi, I.A. Ilinsky and K. Kultas-Ilinsky. Nucleus reticularis thalami connection with the mediodorsal thalamic nucleus: light and electron microscopic study in the monkey. *Brain Res. Bull.* 38:478-488, 1995.
51. Mason, A., K. Kultas-Ilinsky and I.A. Ilinsky. Re-evaluation of synaptic relationships of cerebellar terminals in the ventral lateral nucleus of the rhesus monkey thalamus (VL) based on serial section analysis and 3D reconstruction. *Exp. Brain Res.* 1996, 109:219-239.

52. Ballercia, G., M. Bentivoglio, K. Kultas-Ilinsky and I.A. Ilinsky. Neuronal and synaptic organization of the centromedian nucleus in the Rhesus monkey. *J. Neurocytol.* 1996, 25:267-288.
53. Kultas-Ilinsky, K. and I.A. Ilinsky. Reticular nucleus connections and associated GABA receptors in primates. *Pharmacol. Rev. Comm.* 8:173-176, 1996.
54. Ilinsky, I.A., L. Reising, H. Yi and K. Kultas-Ilinsky. Pallidal afferent territory of the Macaca Mulatta thalamus: Neuronal and synaptic organization of the VAdc. *J. Comp. Neurol.* 386:573-600, 1997.
55. Kultas-Ilinsky, K., H. Yi and I.A. Ilinsky. The mode of termination of pallidal afferents to the thalamus: A light and electron microscopic study with anterograde tracers and immunocytochemistry in Macaca Mulatta. *J. Comp. Neurol.*, 386:601-612, 1997.
56. Gao, D.M., A. Benazzouz, B. Piallat, K. Bressand, I.A. Ilinsky, K. Kultas-Ilinsky and A.L. Benabid. High frequency stimulation of the subthalamic nucleus suppresses experimental resting tremor in the monkey. *Neuroscience* 88:201-212, 1998.
57. Kultas-Ilinsky, K., V. Leontiev and P.J. Whiting. Expression of GABA<sub>A</sub> receptor subunit mRNA's in the thalamus and the basal ganglia of Macaca mulatta studied with *in situ* hybridization histochemistry. *Neuroscience*, 85:179-204, 1998.
58. Bowerly, N.G., K.P. Parry, G. Goodrich, I. Ilinsky, and K. Kultas-Ilinsky. Distribution of GABA<sub>B</sub> binding sites in the thalamus and basal ganglia of the Rhesus monkey. *Neuropharmacology* 38:1675-1682, 1999.
59. Ilinsky, I.A., A. Ambardekar and K. Kultas-Ilinsky. Organization of projections from the anterior pole of the nucleus reticularis thalami (NRT) to subdivision of the motor thalamus: light and electron microscopic studies in the rhesus monkey. *J. Comp. Neurol.* 409:369-384, 1999.
60. Ambardekar, A., I.A. Ilinsky, W. Foerstl, N. Bowerly and K. Kultas-Ilinsky. Distribution and properties of GABA<sub>B</sub> receptor antagonist [<sup>3</sup>H] CGP62349 binding in the rhesus monkey and basal ganglia thalamus and the influence of lesions in the reticular thalamic nucleus. *Neuroscience* 93:1339-1342, 1999.
61. Mason, A., I. Ilinsky, S. Maldonado and K. Kultas-Ilinsky. Thalamic terminal fields of individual axons from the ventral part of the dentate nucleus of the cerebellum in macaca mulatta. *J. Comp. Neurol.* 412:412-428, 2000.
62. Ilinsky, I.A. and K. Kultas-Ilinsky. Neuroanatomical organization and connections of the motor thalamus in primates, In: "Basal Ganglia and Thalamus in Health and Movement Disorders", K. Kultas-Ilinsky and I.A. Ilinsky, eds., Kluwer/Academic/Plenum Publishers, New York, NY, pp. 77-91, 2001.
63. Kultas-Ilinsky, K. and I.A. Ilinsky. Neurotransmitters and receptors in the primate motor thalamus, In: "Basal Ganglia and Thalamus in Health and Movement Disorders", K. Kultas-Ilinsky and I.A. Ilinsky, eds., Kluwer/Academic/Plenum Publishers, New York, NY, pp. 215-224, 2001.
64. Krack, P., J. Dostrovsky, I. Ilinsky, K. Kultas-Ilinsky, F. Lenz, A. Lozano, and J. Vitek. Surgery of the motor thalamus: Problems with present nomenclatures. *Mov. Disord.*, 17, Suppl., 2002.
65. Ilinsky I.A., and K. Kultas-Ilinsky. Motor thalamic circuits in primates with emphasis on the area targeted in treatment of movement disorders. *Mov. Disord.*, 17, Suppl., 2002.
66. Ilinsky, I.A., and K. Kultas-Ilinsky. Stereotactic atlas of *Macaca mulatta* thalamus and adjacent basal ganglia nuclei. Kluwer Academic/Plenum Publishers, New York, Boston, Dordrecht, London,



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67. Taktakishvili, O., E. Sivan-Loukianova, K. Kultas-Ilinsky, I.A. Ilinsky. Posterior parietal cortex projections to the ventrolateral and some association thalamic nuclei in *Macaca mulatta*. Brain Res. Bull. 59:135-150, 2002.
  68. Kultas-Ilinsky, K., E. Sivan-Loukianova, and I.A. Ilinsky. Reevaluation of the primary motor cortex connections with the thalamus in primates. J. Comp. Neurol., 457:133-158, 2003.
  69. Ambardekar, A., A. Surin, K. Parts, I. Ilinsky and K. Kultas-Ilinsky. Distribution and binding parameters GABA<sub>A</sub> receptors in the thalamic nuclei of *Macaca mulatta* and changes caused by lesioning in the globus pallidus and reticular thalamic nucleus. Neuroscience, 118:1033-1043, 2003
  70. Kultas-Ilinsky, K. and C. Verney. Postnatal development of GABAergic synapses in the nigral and entopeduncular afferent territory in the rat thalamus. Neuroembryol. 2:95-138,2003
  71. Kultas-Ilinsky, K., C. Fallet, and C. Verney. Development of the human motor-related thalamic nuclei during the first half of gestation, with special emphasis on GABAergic circuits. J. Comp. Neurol., 476:267-289, 2004.
  72. Kultas-Ilinsky, K., I. Ilinsky, and C. Verney . Glutamic Acid Decarboxylase Isoform 65 Immunoreactivity in the Motor Thalamus of Humans and Monkeys: Gamma Aminobutyric Acidergic Connections and Nuclear Delineations. J. Comp. Neurol. 519:2811-2837, 2011
  73. Ilinsky, I., A. Horn, P. Paul-Gilloteaux, P. Gressens, C Verney and K. Kultas-Ilinsky Human Motor Thalamus Reconstructed in 3D from Continuous Sagittal Sections with Identified Subcortical Afferent Territories. eNeuro 13 June 2018, 5 (3) ENEURO.0060-18.2018; DOI: <https://doi.org/10.1523/ENEURO.0060-18.2018>

## **Abstracts**

1. Kultas-Ilinsky, H.-K., J.J. Taylor and K.R. Smith: Electron microscopy of corticothalamic degeneration in the rat. Anat. Rec. 184:454, 1976. American Association of Anatomists, Louisville, 1976.
2. Ilinsky, I., K. Kultas-Ilinsky and K. Smith. Autoradiographic and ultrastructural studies of nigral projections to the ventromedial nucleus of the cat. Anat. Rec. 187:611, 1977. American Association of Anatomists, Detroit, 1977.
3. Ilinsky, I., K. Kultas-Ilinsky and K. Smith. A reliable stereotaxic technique based on a intracerebral coordinate system in the cat. In: Neurosci. Abst. 3:396, 1977. Society for Neuroscience, Anaheim, 1977.
4. Kultas-Ilinsky, K., I. Ilinsky, L.C. Massopust, P.A. Young and K.R. Smith. Projections from Substantia Nigra pars reticularis in the cat using a new stereotaxic technique. In: Neurosci. Abst. 3:40, 1977. Society for Neuroscience, Anaheim, 1977.
5. Kultas-Ilinsky, K., I. Ilinsky and K.R. Smith. Autoradiographic and ultrastructural demonstration of nigrothalamic projections in the cat with special reference to a new stereotaxic technique. Neurosci. Letts. (Suppl.) 1:165, 1978. European Neuroscience Association, Florence, Italy, 1978.

6. Kultas-Ilinsky, K., I. Ilinsky, P.A. Young and K.R. Smith. Ultrastructure of cerebellar afferents in the ventral medial thalamic nucleus in the cat. In: *Neurosci. Abst.* 4:298, 1978. Society for Neuroscience, St. Louis, 1978.
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