

Subthalamus

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The subthalamus, or prethalamus, is part of the diencephalon. During development the subthalamus is continuous with the hypothalamus, but is separated by white matter fibres mainly from the internal capsule. Caudally, the subthalamus or prethalamus is separated from the thalamus by the zona limitans intrathalamica. Other nuclei of the subthalamus are the zona incerta, thalamic reticular nucleus, and the fields of Forel. Post-natally the subthalamus lies beneath the thalamus, hence 'sub' 'thalamus'. It also lies dorsolateral to the hypothalamus. The subthalamus develops efferent connections to the striatum in the telencephalon, to the dorsal thalamus in the diencephalon, and to the red nucleus and substantia nigra in the mesencephalon. It receives afferent connections from the substantia nigra and striatum. ([From the Wikipedia article Subthalamus.](#))

Recent Publications on Subthalamus:



- [Zona incerta: a role in central pain.](#)
Central pain syndrome (CPS) is a debilitating condition that affects a... 11th September, 2009
Department of Anatomy, University of Maryland School of Medicine, 20 Penn- J Neurophysiol. 2009 Jul;102(1):181-91. Epub 2009 Apr 29. ([DOI Direct Link](#))
- [Modulation of beta oscillations in the subthalamic area during action observation in Parkinson's disease.](#)
Mapping observed actions into the onlooker's motor system seems to provide... 26th August, 2009
Centro Clinico per le Neuronanotecnologie e la Neurostimolazione,- Neuroscience. 2009 Jul 21;161(4):1027-36. Epub 2009 Apr 11. ([DOI Direct Link](#))
- [The posterior subthalamic area in the treatment of movement disorders: past, present, and future.](#)
The introduction of thalamotomy in 1954 led naturally to exploration of... 18th August, 2009
Department of Neurosurgery, University Hospital of Northern Sweden, Umea,- Neurosurgery. 2009 Jun;64(6):1029-38; discussion 1038-42. ([DOI Direct Link](#))
- [Assessing the microlesion effect of subthalamic deep brain stimulation surgery with FDG PET.](#)
OBJECT: The authors investigated whether the insertion of deep brain... 30th July, 2009
Departments of Neurology and Medicine, North Shore University Hospital,- J Neurosurg. 2009 Jun;110(6):1278-82. ([DOI Direct Link](#))
- [Peduncular hallucinosis: A polysomnographic and spect study of a patient and efficacy of serotonergic therapy.](#)
Peduncular hallucinosis (PH) consists of formed and coloured visual... 14th July, 2009
Department of Neurological Sciences, University of Bologna, Bologna,- Sleep Med. 2009 Jul 8. ([DOI Direct Link](#))
- [Differentiation of hypoxic-ischemic encephalopathy and acute bilirubin encephalopathy with magnetic resonance imaging in neonates\]](#)
OBJECTIVE: To investigate the value of conventional magnetic resonance... 25th June, 2009

Department of Radiology, Xiangya Hospital, Central South University, - Zhongguo Dang Dai Er Ke Za Zhi. 2009 Mar;11(3):181-4.

- [Galanin-like peptide stimulates feeding and sexual behavior via dopaminergic fibers within the medial preoptic area of adult male rats.](#)
*Galanin-like peptide (GALP) is located in the arcuate nucleus (Arc) of the...*23rd June, 2009
Department of Biology and Program in Neuroscience, Hope College, Holland, - J Chem Neuroanat. 2009 Mar;37(2):105-11. Epub 2008 Dec 13. ([DOI Direct Link](#))
- [Combined diffuse light reflectance and electrical impedance measurements as a navigation aid in deep brain surgery.](#)
*AIM: The aim of this study is to assess reflected light intensity combined...*12th May, 2009
Department of Biomedical Engineering, Linkoping University, Linkoping, - Stereotact Funct Neurosurg. 2009;87(2):105-13. Epub 2009 Feb 18. ([DOI Direct Link](#))
- [Deep brain stimulation of the posterior subthalamic area in the treatment of tremor.](#)
*BACKGROUND: Several studies have described lesional therapy in the...*10th April, 2009
Department of Neurosurgery, University Hospital of Northern Sweden, Umea, - Acta Neurochir (Wien). 2009 Jan;151(1):31-6. Epub 2008 Dec 18. ([DOI Direct Link](#))
- [Unawareness of "illnesses": a case of right-sided hemiballism.](#)
*The Authors describe a non-demented patient who, after a left subthalamic...*10th April, 2009
Neuropsychology Laboratory Department of Psychology, Second University of - Neurol Sci. 2008 Oct;29(5):347-50. Epub 2008 Oct 21. ([DOI Direct Link](#))
- [MTHFR homozygous mutation and additional risk factors for cerebral infarction in a large Italian family.](#)
*Several cases with cerebral infarctions associated with the C677T mutation...*2nd April, 2009
Division of Child Neurology, Department of Pediatrics, University "La- Pediatr Neurol. 2009 Jan;40(1):63-7. ([DOI Direct Link](#))
- [Clinicopathological aspects of motor parkinsonism.](#)
*Motor parkinsonism is characterised by bradykinesia, muscle rigidity,...*2nd April, 2009
Prince of Wales Medical Research Institute and the University of New South- Parkinsonism Relat Disord. 2007;13 Suppl 3:S208-10. ([DOI Direct Link](#))
- [\[The organization of diencephalic zona incerta projections to the structures of the pallidum in dog brain\]](#)
*The detailed organization of the projections of the individual sectors of...*25th March, 2009
- Morfologija. 2008;134(6):18-22.
- [Artistic creativity and DBS: a case report.](#)
*BACKGROUND: Deep brain stimulation (DBS) is a treatment for patients with...*18th March, 2009
Department of Neurology, University of Florida, College of Medicine, - J Neurol Sci. 2009 Jan 15;276(1-2):138-42. Epub 2008 Oct 21. ([DOI Direct Link](#))
- [\[Cerebral uptake and regional cerebral distribution of propofol under concentration equilibrium condition in the internal carotid artery and internal jugular vein in dogs\]](#)
*OBJECTIVE: To investigate the cerebral uptake and regional distribution of...*28th February, 2009
Department of Anesthesiology, Nanfang Hospital, and Hygiene Inspection- Nan Fang Yi Ke Da Xue Xue Bao. 2009 Feb;29(2):242-5.

Subthalamus Clinical Trials:



- [Convection-Enhanced Delivery to Study the Pathophysiology Underlying the Clinical Features of Parkinson's Disease](#)



Subthalamus Patents:

- 7582062- [Methods of neural centre location and electrode placement in the central nervous system](#)
- 7010356- [Multichannel electrode and methods of using same](#)
- 6827931- [Method for treating endocrine disorders](#)
- 6727264- [Substituted anilinic piperidines as MCH selective antagonists](#)
- 6723552- [DNA encoding a human melanin concentrating hormone receptor \(MCH1\) and uses thereof](#)
- 6720324- [Selective melanin concentrating hormone-1 \(MCH1\) receptor antagonists and uses thereof](#)
- 6291195- [DNA encoding a human melanin concentrating hormone receptor \(MCH1\) and uses thereof](#)
- 6227203- [Techniques for controlling abnormal involuntary movements by brain stimulation and drug infusion](#)
- 6221616- [DNA encoding a human melanin concentrating hormone receptor \(MCH1\) and uses thereof](#)
- 6221613- [DNA encoding a human melanin concentrating hormone receptor \(MCH1\) and uses thereof](#)
- 5978702- [Techniques of treating epilepsy by brain stimulation and drug infusion](#)
- 5814014- [Techniques of treating neurodegenerative disorders by brain infusion](#)
- 5800474- [Method of controlling epilepsy by brain stimulation](#)
- 5792186- [Method and apparatus for treating neurodegenerative disorders by electrical brain stimulation](#)
- 5752979- [Method of controlling epilepsy by brain stimulation](#)
- 5735814- [Techniques of treating neurodegenerative disorders by brain infusion](#)
- 5713923- [Techniques for treating epilepsy by brain stimulation and drug infusion](#)
- 5707396- [Method of arresting degeneration of the substantia nigra by high frequency stimulation of subthalamic nucleus](#)
- 7067534- [Substituted anilinic piperidines as MCH selective antagonists](#)
- 7079977- [Synchronization and calibration of clocks for a medical device and calibrated clock](#)
- 7544690- [MCH receptor antagonists](#)
- 7473698- [Secondary amino anilinic piperidines as MCH1 antagonists and uses thereof](#)
- 7393655- [Methods of identifying melanin concentrating hormone receptor antagonists](#)
- 7335665- [Spirocyclic piperidines as MCH1 antagonists and uses thereof](#)
- 7321837- [Synchronization and calibration of clocks for a medical device and calibrated clock](#)
- 7285118- [Brain stimulation lead used for lesioning](#)
- 7282030- [Timed delay for redelivery of treatment therapy for a medical device system](#)
- 7280867- [Clustering of recorded patient neurological activity to determine length of a neurological event](#)
- 7242983- [Channel-selective blanking for a medical device system](#)
- 7199135- [Substituted alkyl amido piperidines](#)
- 7174206- [Signal quality monitoring and control for a medical device system](#)
- 7167760- [Apparatus and methods of optimal placement of deep brain stimulator](#)
- 7151961- [Treatment of movement disorders by brain stimulation](#)
- 7149572- [Phase shifting of neurological signals in a medical device system](#)
- 7146211- [Signal quality monitoring and control for a medical device system](#)
- 7105544- [Substituted alkyl amido piperidines](#)
- 7084156- [2-Aminoquinoline compounds](#)
- 5683422- [Method and apparatus for treating neurodegenerative disorders by electrical brain stimulation](#)

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