



Central Nervous System

The nervous system has two components: the Central Nervous System (CNS) and the Peripheral Nervous System (PNS). The CNS consists of the brain, spinal cord, and optic nerves; all the other nerves in the body make up the PNS. Nerves allow a person to sense and respond to the stimuli of the external environment. They also control movement. The brain is at the center of this system, receiving and sending the signals that together make up the experience of living.

Alzheimer's Disease

Alzheimer's disease is a progressive condition that affects areas of the brain involved in memory, intelligence, judgment, language, and behavior. It is the most common form of dementia in older adults. Alzheimer's disease is more severe than the mild memory loss that many people experience as they grow older. Alzheimer's disease also affects behavior, personality, the ability to think clearly, and the ability to carry out daily activities. Close family members usually notice symptoms first, although the person affected also may realize that something is wrong.

Indication	Company	Product	Phase
Alzheimer's disease	CoMentis Inc	GTS-21	II
	Corcept Therapeutics Inc	Corlux (mifepristone)	II
	Medivation Inc	Dimebon	II
	Saegis Pharmaceuticals Inc	SGS742	II
	DURECT Corp	Memryte / Durin leuprolide implant	III
	Neurobiological Technologies Inc	Namenda (memantine hydrochloride)	PA
	Neurobiological Technologies Inc	Axura / Namenda / Ebixa (memantine)	M

Amyotrophic Lateral Sclerosis

Amyotrophic Lateral Sclerosis (ALS), also known as Lou Gehrig's disease, is a progressive neurodegenerative disease in which the nerves slowly deteriorate until they die completely. In ALS, the affected nerves are known as motor neurons and transfer signals from the brain to the muscles of the body, directing movement. The first symptoms to appear are a general weakness in the arms, legs, and in the speaking and breathing muscles. Eventually, these muscles become weaker and atrophy (wither and become smaller).

Indication	Company	Product	Phase
Amyotrophic Lateral Sclerosis	Avicena Group Inc	ALS-08 Combination Therapy	II
	Avicena Group Inc	AL-02 / ALS-02	III
	Avicena Group Inc	ALS-02	III
	Impax Laboratories Inc	Riluzole Tablets	A

Anxiety

Anxiety is a combination of emotions including fear, apprehension and worry. Researchers believe that anxiety is the body's way of preparing for, avoiding, and dealing with external threats. There may be cognitive, somatic, emotional and behavioral components, including expectation of danger, high blood pressure, increased heart rate, sweating, inhibited digestive and immune function, trembling, a sense of panic, nausea, and chills.

Company	Product	Phase	Indication
Pherin Pharmaceuticals Inc	PH94B	II	Anxiety
Impax Laboratories Inc	Alprazolam	A	
Jazz Pharmaceuticals	Luvox / Depromel (fluvoxamine maleate)	M	
Jazz Pharmaceuticals	Fluvoxamine maleate extended release capsule	PA	

Attention Deficit Hyperactivity Disorder (ADHD)

It is estimated that one child in a class of 25-30 children suffers from Attention Deficit Hyperactivity Disorder. The disorder usually becomes apparent during the first few years of school and is characterized by two major symptoms: attention deficit (problems paying attention) and hyperactivity (difficulty in controlling behavior). ADHD behavioral problems are fairly distinctive: attention and hyperactivity issues occur more often than in most children, tasks do not get completed, and it appears as though the child cannot control their behavior, not that they simply won't.

Company	Product	Phase	Indication
CoMentis Inc	GTS-21	II	Attention Deficit Disorder with Hyperactivity
Saegis Pharmaceuticals Inc	SGS742	II	
Impax Laboratories Inc	Amphetamine	PA	

Brain Injuries

Unfortunately, there may be a time in one's life when a patient suffers an accident that causes trauma to the brain. Because the brain is the most important organ in the body, it is crucial that everything is done to ensure its continued proper function. Treatments aid the healing of brain tissue without permanent damage.

Company	Product	Phase	Indication
Xytis Inc	Anatibant (LF16-0687MS)	II	Brain Injuries
Xytis Inc	Anatibant / LF16-0687/ XY 2405	II	Traumatic Brain Injury

Depression

Depression, also known as clinical or severe depression, is a state of intense sadness and melancholia that has become disruptive to an individual's ability to function socially and complete the daily activities of life. Most people feel depressed and "down" at some point in their life; it is when these feelings are prolonged that clinical depression is suspect. According to the World Health Organization, clinical depression is currently the leading cause of disability in the US and is expected to become the leading cause of disability worldwide by the year 2020.

Indication	Company	Product	Phase
Depression	Corcept Therapeutics Inc	Corlux (mifepristone)	III
	Impax Laboratories Inc	Bupropion hydrochloride Controlled Release Tablets	M
	Jazz Pharmaceuticals	Luvox / Depromel (fluvoxamine maleate)	M

Epilepsy

Epilepsy occurs as a result of abnormal electrical activity originating from the brain. Brain cells communicate by sending electrical signals in an orderly pattern. In epilepsy these electrical signals become abnormal, giving rise to an "electrical storm" that produces seizures. Epilepsy is a relatively common condition in the United States and about 2.5 million people have epilepsy. In fact, about 9 percent of Americans will have at least one seizure during their lives.

Indication	Company	Product	Phase
Epilepsy	Impax Laboratories Inc	Carbatrol (carbamazepine)	M

Fibromyalgia Syndrome

Fibromyalgia is a chronic syndrome characterized by specific muscle, joint, or bone pain, fatigue and a large range of other symptoms. There is usually a heightened sensitivity to the skin, tingling of the skin, muscle aches, limb weakness, and nerve pain. This condition is seen in 3 to 6 percent of the general population, and is often diagnosed between the ages of 20 and 50 years old.

Indication	Company	Product	Phase
Fibromyalgia Syndrome	Jazz Pharmaceuticals	Xyrem (sodium oxybate)	III

Huntington's Disease

Huntington's disease is a genetic, progressive, neurodegenerative disorder characterized by the gradual development of dementia and the involuntary muscle movements affecting the hands, feet, face, and trunk. This is one of the first inherited genetic disorders for which an accurate test exists.

Company	Product	Phase	Indication
Avicena Group Inc	HD-02	II	Huntington's disease
Medivation Inc	Dimebon	II	

Intermittent Claudication

Intermittent claudication is an aching, crampy, tired, and sometimes burning pain in the legs that comes and goes- it typically occurs with walking and goes away with rest and is due to poor circulation of blood in the arteries of the legs. The usually intermittent nature of the pain is due to narrowing of the arteries that supply the leg with blood, limiting the supply of oxygen to the leg muscles, a limitation that is felt especially when the oxygen requirement of these muscles rises with exercise.

Company	Product	Phase	Indication
Impax Laboratories Inc	Pentoxifylline Extended Release Tablets	M	Intermittent Claudication

Memory

Memory is the ability to store, retain, and recall information from the brain. The study of memory has become one of the pillars of a new branch of science that marries cognitive psychology and neuroscience. Over time, it may become more difficult for people to remember little things here and there; memory loss is generally associated with old age and is a common symptom of several diseases such as Alzheimer's, dementia and hypothyroidism.

Company	Product	Phase	Indication
Saegis Pharmaceuticals Inc	SGS518	II	Memory
Saegis Pharmaceuticals Inc	SGS742	II	

Migraine

Migraine headaches are one of the most common and most debilitating neurological conditions. Characterized by severe pain on one or both sides of the head, they are usually accompanied by sensitivity to light, sound and nausea. It is estimated that migraine headaches are widespread throughout the population, with 10 percent of the population diagnosed and another 5 percent still undiagnosed. Treatments are usually expensive and range from applying hot or cold compresses to the head to migraine rescue drugs that may or may not work for a particular patient. No miracle drug exists, however, and patients need to work with their doctor to determine a combination of therapies that works for them.

Company	Product	Phase	Indication
Roxro Pharma Inc	ROX-828	II	Headache Migraine
Alexza Pharmaceuticals Inc	AZ-001 (Staccato prochlorperazine)	II	
Alexza Pharmaceuticals Inc	AZ-004 (Staccato loxapine)	II	
MAP Pharmaceuticals Inc	Tempo Migraine / MAP0004 (dihydroergotamine mesylate)	II	
Nektar Therapeutics	Dronabinol metered dose inhaler	II	

Multiple Sclerosis

Multiple Sclerosis is a chronic disorder in which damage occurs to the protective tissue, known as myelin, surrounding the nerve fibers of the Central Nervous System. With MS, a person's immune system malfunctions and starts attacking the body's own tissues. In this case, the myelin sheaths are affected. Myelin protects the nerves and is necessary for their proper function. As the disease progresses and myelin is destroyed, the nerve impulses are interrupted and the symptoms of MS occur.

The 400,000 Americans with MS are different in the extent to which they are affected. There are four clinical courses of the disease which range from occasional flare ups to the constant worsening of symptoms, and combinations of the two.

Indication	Company	Product	Phase
Multiple Sclerosis	Bayhill Therapeutics Inc	BHT-3009	II
	Genentech Inc	Rituxan (rituximab)	II
	PDL BioPharma Inc	Daclizumab	II
	PDL BioPharma Inc	Zenapax (daclizumab)	II
	Peppgen Corporation	Tauferon	II
	Novartis AG	Betaferon / Betaseron (interferon-beta- 1b)	III
	Bayer HealthCare	Betaferon / Betaseron (interferon beta- 1b)	A
	Novartis AG	Betaferon / Betaseron (interferon beta- 1b)	A
	Bayer HealthCare Pharmaceuticals (formerly Berlex Inc)	Betaseron (interferon beta-1b)	M
	Novartis AG		M
	Novartis AG	Betaseron (interferon beta-1b)	M
	Questcor Pharmaceuticals Inc	HP Acthar Gel (Repository Corticotropin Injection)	M

Myasthenia Gravis

Myasthenia Gravis is a neuromuscular disease that leads to fluctuating weakness and fatigue. The waxing-and-waning weakness of muscles, worsening with use and improving with rest, is a hallmark of this particular disease. The weakness is caused by antibodies that block the receptors for a certain protein at the neuromuscular junction, preventing the stimulative effect necessary for proper muscle function. It is a lesser known disorder and is estimated to affect about 14 people per 100,000 in the United States.

Indication	Company	Product	Phase
Myasthenia Gravis	Impax Laboratories Inc	Pyridostigmine Bromide Tablets	M

Neuralgia

Neuralgia, as the name suggests, is nerve pain that occurs when a nerve is irritated or inflamed. This painful disorder of the cranial nerves causes short periods of excruciating pain, usually for less than two minutes, on one side of the face. The pain is described by patients as “stabbing,” “sharp,” and “like lightening.”

A relatively common type of neuralgia is postherpetic neuralgia, which strikes after the type of herpes infection known as shingles. Typically, people with this form of neuralgia experience a continuous burning sensation, but pain may also be very severe and unrelenting. Any pain which persists for more than a month after resolution of the herpes zoster rash is called postherpetic neuralgia.

Company	Product	Phase	Indication
DURECT Corporation	TRANSDUR-Bupivacaine / DUR-843 / Eladur	II	Neuralgia
Xenoport Inc	XP13512	II	
DURECT Corporation	TRANSDUR-Bupivacaine / DUR-843 / Eladur	II	Post-Herpetic Neuralgia
Depomed Inc	Gabapentin ER / Gabapentin GR	III	Neuralgia
NeurogesX Inc	Transacin (capsaicin)	III	
NeurogesX Inc	Transacin / NGX-4010 (capsaicin)	III	
NeurogesX Inc	Transacin (capsaicin)	III	Post-Herpetic Neuralgia (PHN)
Teikoku Pharma USA Inc	Lidoderm (lidocaine)	M	Neuralgia

Obsessive Compulsive Disorder

Obsessive-compulsive disorder (OCD) is a potentially disabling anxiety disorder. A person who has OCD has intrusive and unwanted thoughts and repeatedly performs tasks to get rid of the thoughts. The effects of OCD range from mild to severe.

Company	Product	Phase	Indication
Jazz Pharmaceuticals	Luvox CR (fluvoxamine maleate)	PA	Obsessive-Compulsive Disorder
Jazz Pharmaceuticals	Luvox / Depromel (fluvoxamine maleate)	M	

Pain

Pain can arise for a variety of reasons including injury, post-surgery and a complex malfunction of the nerves. While effective pain management is an important part of the healing process, many people must cope in their day to day lives with pain caused from other nerve ailments. Keeping pain under control can lead to a more comfortable, and thus happier, individual.

Indication	Company	Product	Phase
Muscle Pain	Anesiva Inc	Adlea / ALGRX 4975	II
	Anesiva Inc	Adlea / ALGRX 4975 (capsaicin)	II
Pain	Anesiva Inc	ALGRX 4975	II
	AP Pharma Inc	APF112 (mepivacaine)	II
	Avigen Inc /DE	AV411 (ibudilast)	II
	DURECT Corp	POSIDUR / SABER-Bupivacaine	II
	DURECT Corp	TRANSDUR-Sufentanil (sufentanil)	II
	Genentech Inc	RN624	II
	Teikoku Pharma USA Inc	Back pain hydrogel patch	II
	Teikoku Pharma USA Inc	Post-op-pain	II
	Urigen Pharmaceuticals Inc	URG101 (lidocaine, heparin)	II
	Neuropathic Pain	Anesiva Inc	ALGRX 4975
Neuropathy	NeurogesX Inc	Transacin (capsaicin)	III
Pain	ALZA Corp	OROS Hydromorphone	III
	DURECT Corp	Chronogesic (sufentanil)	III
	DURECT Corp	Remoxy (oxycodone)	III
	Horizon Therapeutics Inc	HZT-501	III
	Horizon Therapeutics Inc	HZT-501 (ibuprofen, famotidine)	III
	Pain Therapeutics Inc	OxyTrex (oxycodone and naltrexone)	III
	Pain Therapeutics Inc	Remoxy (oxycodone)	III
	Pharmagenesis Inc	OROS hydromorphone / AP-77	III
	Roxro Pharma Inc	ROX-888 (ketorolac)	III
Post Surgical Pain	Anesiva Inc	ALGRX 4975	III
	Durect Corp	POSIDUR / SABER-Bupivacaine	III
	Anesiva Inc	ALGRX 4975	III
Muscle Pain	Teikoku Pharma USA Inc	Pharmacy Pappu	M
Pain	Impax Laboratories Inc	Oxycodone Hydrochloride Controlled Release Tablets	M
	Novartis AG	Diamorphine	M
	Shaklee Corp	Joint and Muscle Pain Cream and Solution	M
	Shaklee Corp	Pain Relief Complex	M
	Teikoku Pharma USA Inc	Flector EP (diclofenac epolamine)	M
	Teikoku Pharma USA Inc	Harrix Gel Pad	M
	Teikoku Pharma USA Inc	WellPatch	M
	Theralife Inc	TheraLife back and leg	M
	Theralife Inc	TheraLife enhancer	M
	Theralife Inc	TheraLife neck	M
Theralife Inc	TheraLife wrist	M	

Panic Disorders

A panic attack is an episode of intense fear or psychological distress which suddenly appears and symptoms include trembling, shortness of breath, heart palpitations, sweating, nausea, dizziness, hyperventilation and sensations of choking. Repeated attacks may be a sign of a panic disorder and is usually associated with other anxiety problems. It is estimated that up to 10 percent of people in the United States will experience a panic disorder at some point in their lives.

Company	Product	Phase	Indication
Alexza Pharmaceuticals Inc	AZ-002 (Staccato alprazolam)	II	Panic Disorder

Parkinson's Disease

Parkinson's disease affects the way a person moves and it happens when there is a problem with certain nerve cells in the brain. Normally, these nerve cells make an important chemical called dopamine, which sends signals to the part of your brain that controls movement. It lets muscles move smoothly and allows them to function properly. With Parkinson's, these nerve cells break down and the body no longer has enough dopamine, resulting in a difficulty with movement. This disease affects 1.5 million in the US and may progress for years.

Company	Product	Phase	Indication
Antipodean Pharmaceuticals Inc	MitoQ (mitoquinone)	II	Parkinson Disease
Avicena Group Inc	PD-04	II	
Cell Genesys Inc	CERE-120 (AAV-NTN)	II	
Titan Pharmaceuticals Inc	Spheramine	II	
Avicena Group Inc	PD-02	III	
Impax Laboratories Inc	Vadova (carbidopa, levodopa)	PA	
Impax Laboratories Inc	Carbidopa and Levodopa Extended Release Tablets	M	

Restless Leg Syndrome

Restless legs syndrome is a poorly understood and misdiagnosed neurological disorder in which a person feels uncontrollable urges to move his or her limbs in order to stop uncomfortable or painful sensations in the body, usually in the legs. Movement of the affected part eliminates the sensation, providing temporary relief. RLS can start at any age and affects each person differently. Sometimes, the sensations cease entirely; other times they become chronic.

Company	Product	Phase	Indication
Xenopt Inc	XP13512	III	Restless Leg Syndrome

Schizophrenia

Schizophrenia is a serious brain disorder that distorts the way a person thinks, acts, expresses emotions, perceives reality and relates to others. Schizophrenia can leave its sufferer frightened and withdrawn. It is a life-long disease that cannot be cured, but usually can be controlled with proper treatment. Contrary to popular belief, schizophrenia is not a split personality. Schizophrenia is a psychosis, a type of mental illness in which a person cannot tell what is real from what is imagined.

Indication	Company	Product	Phase
Schizophrenia	Alexza Pharmaceuticals Inc	AZ-004 (Staccato loxapine)	II
	CoMentis Inc	GTS-21	II
Acute Agitation in Schizophrenia	Alexza Pharmaceuticals Inc	AZ-004 (Staccato loxapine)	III
Schizophrenia	Titan Pharmaceuticals Inc	Zomaril (iloperidone)	III

Sleep Disorders

Doctors recommend eight to ten hours of sleep a night; the average American only gets seven. Insomnia is defined as the inability to sleep and/or to be incapable of remaining asleep for any lengthy amount of time. A common complaint amongst insomniacs is the inability to “turn off their mind” for more than just a few minutes at a time. Narcolepsy is a neurological condition characterized by excessive daytime sleep and the disorder of rapid eye movement (REM). It is easily distinguishable, as patients feel overwhelmingly sleepy during the day, even after a full nights’ rest and often tend to fall asleep without warning at inappropriate times and places.

Indication	Company	Product	Phase
Insomnia	Transcept Pharmaceuticals Inc	Intermezzo (zolpidem tartrate)	III
	Questcor Pharmaceuticals Inc	Doral (quazepam)	M
	Shaklee Corp	Gentle Sleep Complex	M
Sleep Disorders	Next Pharmaceuticals Inc	Seditol	M
Narcolepsy	Jazz Pharmaceuticals	Xyrem (sodium oxybate)	M

Spasticity

Spasticity is a muscle control disorder that is characterized by tight or stiff muscles and an inability to control those muscles. In addition, reflexes may persist for too long and may be too strong (hyperactive reflexes). Caused by an imbalance of signals from the central nervous system to the muscles, spasticity is often found in people with cerebral palsy, traumatic brain injury, stroke, multiple sclerosis, and spinal cord injury.

Indication	Company	Product	Phase
Spasticity	Xenoport Inc	XP19986	II

Stress

Stress is a normal part of life that can help us learn and grow. Conversely, stress can cause us significant problems. Stress releases powerful neurochemicals and hormones that prepare us for action (to fight or to flee). If no action is taken, the stress response can lead to health problems. Prolonged, uninterrupted, unexpected, and unmanageable stresses are the most damaging types of stress.

Company	Product	Phase	Indication
Next Pharmaceuticals Inc	Relora	M	Stress
Theralife Inc	TheraLife fatigue	M	

West Syndrome

West syndrome, also known as infantile spasm, is a rare serious form of epilepsy in infants. The syndrome is age-related and generally occurs between the 3rd and 12th month, though it is often caused by an organic brain dysfunction whose origins are prenatal, perinatal, or postnatal. Scientific research estimates that prevalence is around 1 in 4000 to 1 in 6000 with boys more likely to be affected by girls. Unfortunately, up to 90 percent of children suffer severe lifelong physical and cognitive impairments.

Company	Product	Phase	Indication
Questcor Pharmaceuticals Inc	HP Acthar Gel (Repository Corticotropin Injection)	PA	West Syndrome



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