List of Drugs in Development for Neurodegenerative Diseases

Update June 2007

Vanda Pogačić Paul Herrling

Corporate Research, Novartis International AG, Basel, Switzerland

Neurodegenerative diseases are an increasingly important issue in our society. There are, however, still many obstacles on the way to finding methods for the cure. This table is intended to give an overview over neurodegenerative drugs that are currently in research and development, providing the reader with an idea about the complexity of drug discovery in this field. It is intended as a pointer to drugs and our recommendation is to obtain additional information from the internet in order to check for the newest developments.

Note that drugs which are registered, launched, discontinued, or used for research tools in the previous issues are deleted in this issue.

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
1.	Discovery	University of South Florida	(-)-epigallocatechin-3-gallate	Neurodegenerative disease; Legionella infection	IL synthesis modulator; Protein kinase C modulator; TACE modulator	Cell cycle inhibitor
2.	Phase 2	National Institutes of Health and Daewoong Pharmaceutical	(-)-phenserine	Alzheimers disease	Acetylcholinesterase inhibitor; Beta amyloid synthesis inhibitor	Nootropic agent
3.	Discovery	Fujimoto Seiyaku Co Ltd	(R)-(-)-BPAP	Neurodegenerative disease; Parkinson disease; Major depressive disorder	Neurotransmitter modulator	Neuroprotectant
4.	Phase 3	Loma Linda University Medical Center	(R)-flurbiprofen	Alzheimers disease	Cyclooxygenase 2 modulator; Beta amyloid synthesis inhibitor; Gamma-secretase modulator	Anticancer; Neuroprotectant
5.	**Phase 1	GlaxoSmithKline plc/ Neurocrine Biosciences Inc	561679	Irritable bowel syndrome; Anxiety disorder; Major depressive disorder	CRF-1 receptor antagonist	Antidepressant; Anxiolytic
6.	Phase 1	GlaxoSmithKline plc	644784	Pain; Schizophrenia	Cyclooxygenase 2 inhibitor	Antipsychotic; Analgesic

* Changes made from last issue; ** newly added drug.

KARGER

Fax +41 61 306 12 34
E-Mail karger@karger.ch
www.karger.com

© 2007 S. Karger AG, Basel
1660–2854/07/0046–0443\$23.50/0

Accessible online at:
www.karger.com/ndd

Prof. Paul Herrling
Novartis International AG
Postfach
CH–4002 Basel (Switzerland)

Tel. +41 61 324 7735, Fax +41 61 324 2141, E-Mail Paul.Herrling@group.novartis.com

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
7.	Phase 2	GlaxoSmithKline plc	742457	Alzheimers disease; Schizophrenia	5-HT 6 antagonist	Antipsychotic; Nootropic agent
8.	Phase 2	GlaxoSmithKline plc	773812	Schizophrenia	5-HT antagonist; Dopamine modulator	Antipsychotic
9.	**Phase 2	University of Pennsylvania/Avid Radiopharmaceuticals Inc	123I-IMPY	Alzheimers disease	SPECT contrast agent	Radiodiagnostic
10.	**Phase 1	University of Pittsburgh/Uppsala Imanet AB	18F-6-OH-BTA-1	Alzheimers disease	Beta amyloid modulator; PET contrast agent	Radiodiagnostic
11.	**Phase 1	University of Pennsylvania/Avid Radiopharmaceuticals Inc	18F-AV-1/ZK	Alzheimers disease	Imaging agent; PET contrast agent	Radiodiagnostic
12.	Phase 1	University of California Los Angeles	18F-FDDNP	Alzheimers disease	Beta amyloid modulator; PET contrast agent	Radiodiagnostic
13.	Discovery	University of Pennsylvania	18F-labeled fluoropolyethylene glycol derivatives (Alzheimers disease detection)	Alzheimers disease	PET contrast agent	Radiodiagnostic; Neuroprotectant
14.	**Discovery	Taisho Pharmaceuticals Co Ltd	20-HETE synthase inhibitors	Renal disease; Cerebrovascular disease	Platelet aggregation inhibitor	
15.	Discovery	Eli Lilly & Co	3,5-DHPG	Neurological disease	Metabotropic glutamate receptor 1 agonist	Neuroprotectant
16.	**Discovery	University of Pennsylvania	5-HT1A ligands	Anxiety disorder	5-HT 1a receptor modulator	Anxiolytic
17.	Discovery	Merck Sharp & Dohme Ltd	5-HT 2a antagonists	Schizophrenia; Insomnia	5-HT 2a antagonist	Antipsychotic
18.	Discovery	Sigma-Tau Ind Farm Riunite SpA	5-HT2/dopamine D3 antagonists	Psychosis; Schizophrenia	Dopamine D3 antagonist; 5-HT 2 antagonist	Antipsychotic
19.	Discovery	NPS Allelix Corp	5-HT6 antagonists	Psychiatric disorder; Schizophrenia	5-HT 6 antagonist	Antipsychotic
20.	Discovery	GlaxoSmithKline plc	5-HT 6 receptor antagonists	Schizophrenia; Cognitive disorder; Major depressive disorder	5-HT 6 antagonist	Antidepressant; Antipsychotic
21.	*No development reported (Discovery)	Neurotech Pharmaceuticals Inc	5-(pentafluoro-benzyl) amino-salicylic acid; former NMDA antagonists	Cerebral hypoxia; Brain injury	Noncompetitive NMDA antagonist	Neuroprotectant
22.	Phase 1	University of Pennsylvania/GE Healthcare	99mTc-Trodat-1	Parkinsons disease; Brain disease	SPECT contrast agent; Dopamine modulator	
23.	Discovery	Abbott Laboratories	A-366833; A-35380	Alzheimers disease; Neurodegenerative disease; Nicotine use disorder; Anxiety disorder; Pain; Schizophrenia; Major depressive disorder	Nicotinic ACh receptor agonist; Neuronal nAChR ligand	Nootropic agent; Anxiolytic; Antipsychotic; Analgesic

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
24.	*Phase 3 (Phase 2)	ImaRx Therapeutics Inc	A-74187	Cerebrovascular ischemia	Fibrinolysis stimulator; Pro-urokinase; Urokinase plasminogen activator inhibitor	Neuroprotectant
25.	**Discovery	Elan Corp plc/Wyeth	AAB-002	Alzheimers disease	Amyloid protein deposition inhibitor; Monoclonal antibody	Nootropic agent
26.	Phase 1	Ferrer Internacional SA	Abaperidone	Schizophrenia	Dopamine D3 antagonist; Dopamine D2 antagonist; Antipsychotic; 5-HT 2a antagonist	Antipsychotic
27.	*Dis-continued (Phase 2)	Centocor Inc	Abciximab	Thromboembolism; Restenosis; Angina; Ischemic heart disease; Cardiovascular disease; Cerebrovascular ischemia	Integrin alpha-V/ beta-3 antagonist; Platelet aggregation inhibitor; GP IIb/IIIa antagonist	Vasoprotectant
28.	*Phase 2 (Phase 1)	BTG plc	ABIO-08-01; former BTG-1640	Alzheimers disease; Amnesia; Anxiety disorder; Drug dependence	No information available	Anxiolytic
29.	Phase 2	Abbott Laboratories	ABT-089	Alzheimers disease; Schizophrenia; Attention deficit hyperactivity disorder	Nicotinic ACh modulator	Antipsychotic; Cognition enhancer
30.	**Phase 1	Abbott Laboratories/ NeuroSearch A/S	ABT-107	Pain; Schizophrenia; Central nervous system disease; Neurological disease	Nicotinic ACh receptor modulator	Antipsychotic; Analgesic
31.	Discovery	ACADIA Pharmaceuticals Inc	AC-184897	Neurodegenerative disease; Carcinoma	Nuclear receptor agonists	Anticancer; Neuroprotectant
32.	Phase 2	Dainippon Pharmaceutical Co Ltd	AC-3933	Cognitive disorder; Dementia	BDZ inverse agonist GABA modulator	Nootropic agent
33.	Discovery	ACADIA Pharmaceuticals Inc	AC-90222	Alzheimers Disease	Muscarinic M1 agonist	Nootropic agent; Antipsychotic
34.	Phase 1	Elan Corp plc/Wyeth	ACC-001	Alzheimers disease	Vaccine; Amyloid protein deposition inhibitor	Immuno-modulator; Neuroprotectant;
35.	Discovery	University of California/Scripps Institute/Siemens Medical Solutions Molecular Imaging	Acetylcholinesterase (AChE) inhibitors	Alzheimers disease	Acetylcholinesterase inhibitor	Nootropic agent
36.	**Discovery	University of Bologna	AChE inhibitors	Alzheimers disease	Acetylcholinesterase inhibitor; Muscarinic M2 receptor antagonist	Nootropic agent
37.	**Discovery	Universitat Autònoma de Barcelona	AChE inhibitors	Alzheimers disease	Acetylcholinesterase inhibitor	
38.	Discovery	Synaptica Ltd	AChE peptide fragment (neurodegenerative disease)	Alzheimers disease; Motor neurone disease; Parkinsons disease	Acetylcholinesterase modulator	Anti-parkinsonian; Neuroprotectant

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
39.	**Phase 2	ACADIA Pharmaceuticals Inc	ACP-104	Schizophrenia	Dopamine D2 receptor partial agonist; Dopamine D3 receptor partial agonist; Muscarinic M1 receptor agonist	Antipsychotic
40.	Discovery	Prescient NeuroPharma Inc	ACPD analogs	Epilepsy; Anxiety disorder; Cerebrovascular ischemia; Head injury	Metabotropic glutamate receptor 1 agonist; Metabotropic glutamate receptor 2 agonist	Neuroprotectant; Anxiolytic; Anticonvulsant agent
41.	Discovery	Centre National de la Recherche Scientifique (CNRS)	ACUDA	Neurological disease	Ionotropic glutamate receptor antagonist	Neuroprotectant
42.	**Discovery	Almirall Prodesfarma SA/Neurocrine Biosciences Inc	Adenosine A2a receptor antagonists (Parkinsons)	Parkinsons disease	Adenosine A2a antagonist	Anti-parkinsonian
43.	Discovery	National Institutes of Health	ADNF-14	Alzheimers disease	Protection of neurons from the toxic effects of beta-amyloid protein and NMDA	Neuroprotectant
44.	Discovery	Addex Pharmaceuticals SA/Ortho-McNeil Pharmaceutical Inc	ADX-2	Schizophrenia; Anxiety disorder; Cognitive disorder; Drug dependence; Major depressive disorder	Unspecified GPCR modulator	Nootropic agent; Antidepressant; Anxiolytic; Antipsychotic
45.	*Phase 1 (Discovery)	Aegera Therapeutics Inc	AEG-33783; former AEG-3482 series	Diabetic neuropathy; Neurodegenerative disease; Peripheral neuropathy	Jnk pathway inhibitor	Neuroprotectant; Antiapoptotic
46.	Discovery	Aeolus Pharmaceuticals Inc	AEOL-10113	Reperfusion injury; Cerebrovascular ischemia; Asthma; Lung malformation; Respiratory distress syndrome; Cancer; Insulin dependent diabetes	Free radical scavenger; Angiogenesis inhibitor	Anticancer; Neuroprotectant; Antioxidant agent
47.	Phase 1	Aeolus Pharmaceuticals Inc	AEOL-10150	Mucositis; Motor neurone disease; Cerebrovascular ischemia; Spinal cord injury; Lung inflammation	Catalytic antioxidant	Neuroprotectant; Radioprotectant; Antioxidant
48.	Discovery	ArmaGen Technologies Inc	AGT-100	Alzheimers disease	Radiopharmaceutical; Beta amyloid modulator	Imaging agent
49.	Discovery	ArmaGen Technologies Inc	AGT-120	Cerebrovascular ischemia	A bi-functional drug that binds both a receptor on the human blood-brain barrier and a undisclosed neurotrophin receptor on brain cells/ unspecified receptor modulator	Neuroprotectant

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
50.	Discovery	ArmaGen Technologies Inc	AGT-140	Cerebrovascular ischemia	This receptor is different from the neurotrophin receptor that AGT-120 binds. As both drugs induce neuroprotection in different regions of the brain the effects of the drugs in stroke will be additive	Neuroprotectant
51.	Discovery	ArmaGen Technologies Inc	AGT-160	Alzheimers disease	Amyloid protein deposition inhibitor	
52.	Discovery	AGY Therapeutics	AGY-207	Cerebrovascular ischemia	Unclassified enzyme inhibitor	Neuroprotectant
53.	*Phase 2 (Phase 1)	Allon Therapeutics Inc	AL-108	Alzheimers disease; Central nervous system disease; Ocular disease; Parkinson disease; Schizophrenia; Cognitive disorder	CNS modulator; PARP stimulator; Tubulin binding agent	Neuroprotectant; Nootropic agent
54.	*Phase 2 (Phase 1)	Allon Therapeutics Inc	AL-208	Neurodegenerative disease; Cognitive disorder; Ocular disease; Cerebrovascular ischemia	PARP stimulator	Neuroprotectant; Nootropic agent
55.	**Discovery	Allon Therapeutics Inc	AL-408	Fetal alcohol syndrome	CNS modulator; PARP stimulator; Tubulin binding agent; Activity-dependent neuroprotector modulator	Neuroprotectant; Nootropic agent
56.	Discovery	University of Queensland	Alpha-conotoxins	Neurological disease	Nicotinic ACh antagonist	Muscle relaxant
57.	Discovery	OXIS International Inc	ALT-2074; former BXT-51072	Chronic obstructive pulmonary disease; Inflammatory bowel disease; Asthma; Ulcerative colitis; Cardiovascular disease; Central nervous system disease; Cerebrovascular ischemia; Diabetic complication	Glutathione modulator; Glutathione peroxidase stimulator	Neuroprotectant; Vasoprotectant; Anti-inflammatory
58.	Phase 3	Harvard University	Altropane	Parkinsons disease; Attention deficit hyperactivity disorder	Dopamine transporter ligand; 123I labelled	Diagnostic/ Imaging agent
59.	Discovery	VLP Biotech Inc	Alzheimers disease vaccine; former Vaccine (Alzheimers disease)	Alzheimers disease	Vaccine; Beta amyloid modulator	Immuno-stimulant
60.	Discovery	ArQule Inc/Wyeth	Alzheimers therapy	Alzheimers disease	No information available	Nootropic agent
61.	Discovery	Pharmexa A/S/ Lundbeck	Alzheimers vaccine (AutoVac)	Alzheimers disease	Vaccine; Target not disclosed	Neuroprotectant

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
62.	Discovery	Johnson & Johnson	Aminopyrimidines (neuroprotective)	Cerebrovascular ischemia		Neuroprotectant
63.	Discovery	Pfizer Inc	Ampa antagonists; former PD-159265	Neurodegenerative disease	AMPA receptor antagonist	Neuroprotectant
64.	*No development reported (Discovery)	Servier	AMPA antagonists; former S-176251; S-34730-1; S-34730	Neurodegenerative disease; Cerebrovascular ischemia; Seizure, epilepsy & convulsion	AMPA receptor antagonist	Neuroprotectant; Anticonvulsant agent
65.	Discovery	Eli Lilly & Co	AMPA modulators	Cognitive disorder	AMPA receptor modulator	Nootropic agent
66.	Discovery	NV Organon	AMPA modulators	Alzheimers disease; Schizophrenia; Cognitive disorder	AMPA receptor modulator	Antipsychotic
67.	Discovery	Yamanouchi Pharmaceutical Co Ltd	AMPA receptor antagonists	Epilepsy	AMPA receptor antagonist	Neuroprotectant
68.	Discovery	University of Messina/ University of Cantanzaro/Pfizer	AMPA receptor antagonists	Epilepsy; Central nervous system disease; Cerebrovascular ischemia	AMPA receptor antagonist	Neuroprotectant; Anticonvulsant agent
69.	Discovery	Novartis AG	AMPA/NMDA modulators (CNS disorders); former Methylphenyl-ethynylpyridine (MPEP)	Epilepsy; Pain; Neurodegenerative disease; Anxiety disorder; Cerebrovascular ischemia; Head injury	Metabotropic glutamate receptor 1 agonist; Metabotropic glutamate receptor 5 antagonist; NMDA receptor antagonist; AMPA receptor antagonist	Neuroprotectant; Analgesic; Anticonvulsant agent; Anxiolytic
70.	Discovery	Eisai Co Ltd	AMPA receptor antagonists (Multiple sclerosis)	Multiple sclerosis	AMPA receptor antagonist	Neuroprotectant
71.	Discovery	Boehringer Ingelheim Corp	Amyloid-beta formation inhibitors	Alzheimers disease	Beta amyloid synthesis inhibitor	Anti-amyloidogenic
72.	Discovery	Mayo Foundation	Amyloid beta MRI contrast agents (Alzheimers)	Alzheimers disease	MRI imaging agent	Diagnostic
73.	*Phase 2 (Phase 1)	Fournier Pharma	Anatibant	Allergic rhinitis; Asthma; Cerebrovascular ischemia; Head injury	Bradykinin B2 antagonist	Anti-inflammatory; Neuroprotectant
74.	**Discovery	Anavex Life Sciences Corp	ANAVEX-1-41	Alzheimers disease	Sodium channel modulator; Chloride channel modulator; Apoptosis inhibitor; Neuroprotectant; Muscarinic M1 receptor agonist; Muscarinic M2 receptor antagonist; Sigma-1 opioid modulator	Nootropic agent; Anticonvulsant agent
75.	Phase 3	Neurobiological Technologies Inc	Ancrod	Cerebral infarction; Heart disease; Cerebrovascular ischemia	Fibrinolytic agent; Vascular agent; cardiovascular agent; Vitamin K dependent protein C stimulator	Neuroprotectant

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
76.	Discovery	Acumen Pharmaceuticals Inc	Anti-ADDL antibodies (Alzheimers disease)	Alzheimers disease	Amyloid protein deposition inhibitor	
77.	Discovery	Aegera Therapeutics Inc	Anti-apoptotic gene therapy (IAP)	Parkinsons disease; Multiple sclerosis; Cerebrovascular ischemia	Apoptosis inhibitor; Caspase inhibitor; Gene therapy	Neuroprotectant
78.	Discovery	Northwestern University/ NeuroMedix Inc	Anti-neuroinflammatories (Alzheimers disease)	Alzheimers disease	Cytokine synthesis inhibitor	Neuroprotectant; Nootropic agent; Anti-inflammatory
79.	Discovery	Isis Pharmaceuticals Inc	Antisense oligonucleotides (SOD1); former ALS antisense therapeutics	Motor neurone disease	Superoxide dismutase inhibitor; Antisense oligonucleotide inhibitor	Neuroprotectant
80.	**Discovery	Antoxis Ltd	AO-1-530	Cerebrovascular ischemia	Antioxidant agent; Free radical scavenger	Neuroprotectant
81.	**Discovery	AcurePharma AB	AP-267	Alzheimers disease; Acute stress disorder; Opiate dependence	5-HT 2c receptor modulator	Neuroprotectant
82.	**Discovery	Apogenix Biotechnology AG	APG-101	Spinal cord injury; Myocardial infarction; Graft versus host disease; Cerebro-vascular ischemia	Apoptosis inhibitor; CD95 antagonist	
83.	**Phase 3	Bristol-Myers Squibb Co/Pfizer Inc	Apixaban	Thrombosis; Lung embolism; Deep vein thrombosis; Cerebrovascular ischemia	Factor Xa antagonist; Coagulation inhibitor	
84.	*Phase 3 (Phase 2)	Britannia Pharmaceuticals Ltd	Apomorphine (nasal; ED)	Erectile dysfunction; Parkinsons disease	Dopamine D2 receptor agonist	Anti-parkinsonian; Apomorphine modulator
85.	Discovery	Arena Pharmaceuticals Inc	AR-139525	Neurodegenerative disease; Parkinsons disease	Unspecified GPCR antagonist	Neuroprotectant; Antiparkinsonian
86.	**Phase 2	CytRx Corp	Arimoclomol	Motor neurone disease; Cerebrovascular ischemia; Non-insulin dependent diabetes; Diabetic complication	Hypoglycemic agent; Chaperonin stimulator	Neuroprotectant
87.	*Phase 3 (Phase 2)	Ono Pharmaceutical Co Ltd	Arundic acid (injectable formulation); former ONO-2506	Alzheimers disease; Motor neurone disease; Parkinsons disease; Cerebral infarction; Cerebrovascular ischemia	Protection of dopaminergic neurons; Inhibition of S100B synthesis; Astrocyte modulator	Neuroprotectant; Antiparkinsonian
88.	**Phase	Axonyx Inc	AS-602704	Alzheimers disease; Neurodegenerative disease	Beta amyloid synthesis inhibitor	
89.	Discovery	Merck Serono SA	AS-602801; former AS-600292; AS-004509; AS-601245; AS-602183	Inflammation; Neurodegenerative disease; Central nervous system disease; Ischemia; Pulmonary fibrosis	Jun N terminal kinase modulator; Jun N terminal kinase-2 inhibitor; Jun N terminal kinase-3a inhibitor	Vasoprotectant; Anti-inflammatory

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
90.	Phase 3	NV Organon	Asenapine	Psychosis; Schizophrenia; Bipolar disorder	Dopamine D1 antagonist; Dopamine D2 antagonist; 5-HT 2a antagonist	Antipsychotic
91.	**Phase 1	CoMentis Inc	ATG-Z1	Alzheimers disease	Beta amyloid synthesis inhibitor; Beta-secretase inhibitor	Nootropic agent
92.	*Phase 2 (Clinical)	Novartis AG	ATI-355; former 7B12	Spinal cord injury; Nervous system injury	NOGO receptor antagonist	Neuroprotectant
93.	**Phase 2	ARYx Therapeutics Inc	ATI-5923	Thrombosis; Deep vein thrombosis; Cerebrovascular ischemia	Vitamin K epoxide reductase inhibitor; Blood system agent; Coagulation inhibitor	
94.	Phase 2	Genzyme Corp	AV-201	Parkinsons disease	Dopamine synthesis stimulant; Adeno-associated virus based gene therapy; Tyrosine hydroxylase stimulator	Antiparkinsonian
95.	**Discovery	Avigen Inc	AV-333	Neuropathic pain	IL-10 agonist; Adeno-associated virus based gene therapy	Analgesic
96.	Phase 2	Aventis SA	AVE-1625	Parkinsons disease; Alzheimers disease; Schizophrenia; Syndrome X; Obesity; Lipid metabolism disorder	Cannabinoid CB1 antagonist; Metabolic modulator; Antihyperlipidemic agent; Metabolic modulator	Appetite suppressant; Nootropic agent; Antipsychotic; Antiparkinsonian
97.	*Phase 1 (Discovery)	Aventis SA	AVE-8112	Alzheimers disease	PDE 4 inhibitor	Nootropic agent
98.	Discovery	Children's Hospital of Boston/Alseras Pharmaceuticals	Axogenesis Factor 1	Spinal cord injury; Glaucoma; Motor neurone disease; Neurodegenerative disease; Cerebro-vascular ischemia	NGF agonist	Neuroprotectant; Antiglaucoma agent
99.	Discovery	Acorda Therapeutics Inc	Axonal guidance proteins	Spinal cord injury; Parkinsons disease	Cell adhesion molecule modulator	Neuroprotectant; Antiparkinsonian
100.	*Phase 1 (Discovery)	Transition Therapeutics Inc/Elan Corp plc	AZD-103	Alzheimers disease	Amyloid protein deposition inhibitor	Nootropic agent
101.	*Phase 1 (Discovery)	AstraZeneca plc	AZD-1080	Alzheimers disease	Tau aggregation inhibitor	Neuroprotectant
102.	Discovery	AstraZeneca plc	AZD-3102	Alzheimers disease	CNS modulator	
103.	Phase 1	NPS Pharmaceuticals Inc/AstraZeneca plc	AZD-9272	Gastroesophageal reflux; Neuropathic pain; Neurological disease	Metabotropic glutamate receptor 1 modulator; CNS modulator; Gastrointestinal system agent	Analgesic
104.	Discovery	BioAxone Therapeutique Inc	BA-1016	Neurodegenerative disease	Rho kinase inhibitor	Anticancer; Neuroprotectant
105.	Discovery	Wyeth	BACE 1 inhibitors	Alzheimers disease	Beta-secretase-1 inhibitor	Neuroprotectant
106.	Discovery	Schering-Plough Corp	BACE 1 inhibitors	Alzheimers disease	Beta amyloid synthesis inhibitor; Beta-secretase-1 inhibitor	

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
107.	**Discovery	Kyoto University	BACE-1 inhibitors	Alzheimers disease	Unspecified enzyme inhibitor; Metalloprotease inhibitor; Beta-secretase inhibitor	Nootropic agent
108.	**Discovery	GlaxoSmithKline plc	BACE1 inhibitors	Alzheimers disease	Beta amyloid synthesis inhibitor; Beta-secretase-1 inhibitor	Neuroprotectant
109.	**Discovery	Bristol-Myers Squibb Co	BACE-1 inhibitors	Alzheimers disease	Beta amyloid synthesis inhibitor; Beta-secretase-1 inhibitor	Neuroprotectant
110.	**Discovery	Johnson & Johnson	BACE inhibitor	Alzheimers disease	Beta amyloid synthesis inhibitor; Beta-secretase inhibitor	Neuroprotectant
111.	Discovery	The Genetics Company Inc	BACE inhibitors	Alzheimers disease	Beta amyloid synthesis inhibitor	Neuroprotectant
112.	**Discovery	Astex Therapeutics Ltd/AstraZeneca plc	BACE inhibitors	Alzheimers disease	Beta amyloid synthesis inhibitor; Beta-secretase inhibitor	Neuroprotectant
113.	Discovery	Eli Lilly & Co	BACE inhibitors	Alzheimers disease	Beta amyloid synthesis inhibitor; Beta-secretase inhibitor	Neuroprotectant
114.	Phase 2	Elan Corp plc/Wyeth	Bapineuzumab; former AAB-001	Alzheimers disease	Amyloid protein deposition inhibitor	Immuno-modulator
115.	Discovery	Universita degli Studi di Siena	Benzodiazepine receptor ligands; former PK-11195 analogs	Neurodegenerative disease; Anxiety disorder; Cancer	PET contrast agent; Benzodiazepine agonist	Anxiolytic; Anticancer; Chemosensitizer
116.	Phase 1	Purdue Neuroscience Corp	Besonprodil	Epilepsy; Pain; Parkinsons disease; Cerebrovascular ischemia	NMDA receptor antagonist	Analgesic; Anti-parkinsonian; Anticonvulsant agent
117.	Discovery	University of Wisconsin-Madison	Beta amyloid inhibitors	Alzheimers disease	Beta amyloid synthesis inhibitor	Neuroprotectant
118.	**Discovery	Q-RNA Inc	Beta-amyloid inhibitors	Alzheimers disease	Beta amyloid modulator	Neuroprotectant; Nootropic agent
119.	**Discovery	Oceanix Corp	Beta amyloid inhibitors	Alzheimers disease	Beta amyloid modulator	
120.	**Discovery	Chiesi Farmaceutici SpA	Beta amyloid inhibitors	Alzheimers disease	Amyloid protein deposition inhibitor	Nootropic agent
121.	Discovery	Sankyo Co Ltd	Beta-amyloid synthesis inhibitors (Alzheimer's disease)	Alzheimers disease	Beta amyloid synthesis inhibitor	Nootropic agent
122.	Discovery	Merck & Co Inc	Beta-secretase inhibitors (Alzheimers)	Alzheimers disease	Beta-secretase inhibitor	Nootropic agent
123.	**Discovery	Actelion	Beta-secretase inhibitors	Alzheimers disease	Beta amyloid modulator; Beta-secretase inhibitor; Aspartic protease inhibitor	Nootropic agent
124.	Discovery	Sankyo Co Ltd	BGC-20-1178	Neurodegenerative disease; Alzheimers disease	Beta amyloid modulator	Nootropic agent

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
125.	Phase 1	Sankyo Co Ltd/BTG plc	BGC-20-1259	Alzheimers disease	Acetylcholinesterase inhibitor; 5-HT uptake inhibitor	Neuroprotectant; Nootropic agent
126.	Discovery	Mitsubishi-Tokyo Pharmaceuticals Inc/ Sosei Co Ltd	Bifemelane	Alzheimers disease; Attention deficit hyperactivity disorder; Cognitive disorder; Cerebral hypoxia; Cerebral infarction; Cerebrovascular ischemia; Amnesia; Dementia	MAO A inhibitor; ACh agonist	Neuroprotectant; Nootropic agent
127.	*Pre-registration (Phase 3)	Solvay SA	Bifeprunox	Parkinsons disease; Psychosis; Schizophrenia; Schizoaffective disorder; Bipolar disorder	Dopamine D2 agonist; 5-HT 1a agonist	Anti-parkinsonian; Antipsychotic
128.	*Phase 2	Vernalis Group plc/ Biogen Idec Inc	BIIB-014; former V-2006	Parkinsons disease	Adenosine A2a antagonist	Antiparkinsonian
129.	Phase 2	Boehringer Ingelheim Corp	BIIB-890-CL	Cerebrovascular ischemia; Pain	Sodium channel blocker	Neuroprotectant
130.	Discovery	TorreyPines Therapeutics	Bisnorcymserine	Alzheimers disease	Beta amyloid synthesis inhibitor; Cholinesterase inhibitor	Nootropic agent
131.	Discovery	4SC AG	BK channel blockers	Incontinence; Asthma; Central nervous system disease	Potassium channel modulator	Neuroprotectant; Anti-inflammatory
132.	Pre-registration	Dainippon Pharmaceutical Co Ltd	Blonanserin	Psychosis; Schizophrenia	5-HT 2 antagonist; Dopamine D2 antagonist	Antipsychotic
133.	**Discovery	Aastrom Biosciences Inc	Bone marrow-derived stem cell therapy	Bone injury; Neurodegenerative disease; Osteoporosis; Osteonecrosis; Arthropathy; Ischemia; Myocardial disease; Diabetic complication	Stem cell therapy	Bone modulator; Cardiac agent
134.	**Discovery	Millennium Pharmaceuticals Inc	Bortezomib	Amyloidosis; Non-small-cell lung cancer; Acute myelogenous leukemia; Chronic lymphocytic leukemia; Mantle cell lymphoma; Diffuse large B-cell lymphoma; Multiple myeloma; Prostate tumor; T-cell lymphoma; Non-Hodgkin lymphoma; Breast tumor; Cerebrovascular ischemia; Solid tumor; Colorectal tumor	Apoptosis modulator; Nuclear factor kappa B inhibitor; Proteasome inhibitor	Anticancer

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
135.	Phase 2	UCB Pharma SA	Brivaracetam	Epilepsy; Neuropathic pain; Neurological disease	Synaptic vesicle glycoprotein 2A (SV2A) ligand	Analgesic; Anticonvulsant agent
136.	**Discovery	Blanchette Rockefeller Neurosciences Institute (BNRI)/Aphios Corp	Bryostatin-1 (cognitive disorder)	Cognitive disorder	Protein kinase C stimulator; Amyloid protein deposition inhibitor	Nootropic agent
137.	*No development reported/ discontinued (Discovery)	Knoll Ltd	BTS-72664	Epilepsy; Migraine; Cerebrovascular ischemia	Stimulates chloride currents and weakly inhibits sodium and NMDA channels	Neuroprotectant; Analgesic; Anticonvulsant agent
138.	**Discovery	Nexia Biotechnologies Inc/PharmaAthene Inc	Butyrylcholinesterase (recombinant human, nerve agent exposure)	Alzheimers disease; Toxicity	Cholinesterase stimulator	Protectant
139.	Discovery	BioCryst Pharmaceuticals Inc	CI1s inhibitors	Inflammation; Myocardial infarction; Systemic lupus erythematosus; Autoimmune disease; Cerebrovascular ischemia; Respiratory distress syndrome	Serine protease inhibitor; Complement cascade inhibitor	Neuroprotectant; Cardioprotectant; Vasoprotectant; Anti-inflammatory
140.	Phase 1	Cytos Biotechnology AG/Novartis AG	CAD-106	Alzheimers disease	Beta amyloid modulator; Vaccine	Neuroprotectant
141.	*No development reported/ discontinued (Discovery)	AstraZeneca plc	Calcium channel antagonists	Neuropathic pain	Calcium channel blocker; N-type	Analgesic
142.	**Discovery	Eli Lilly & Co	Calcium channel antagonists N-type	Bronchus disease; Central nervous system disease	Calcium channel blocker; N-type	
143.	Discovery	Neuropharma SA	Calcium channel blockers (Alzheimers disease)	Alzheimers disease	Acetylcholinesterase inhibitor; Calcium channel blocker	Neuroprotectant
144.	**Discovery	Neuromed Pharmaceuticals Inc	Calcium channel blockers (stroke) N-type	Cerebrovascular ischemia	Calcium channel blocker; N-type	
145.	Discovery	Senju Pharmaceutical Co Ltd	Calpain inhibitors	Nervous system injury; Muscular dystrophy; Neurodegenerative disease; Cataract; Cerebrovascular ischemia	Calpain inhibitor	Neuroprotectant
146.	Discovery	H Lundbeck A/S	Carbamylated erythropoietin	Cerebrovascular ischemia	Induction of synthesis of growth factors BDNF and VEGF without affecting hematopoiesis	Neuroprotectant
147.	Discovery	Chemical Diversity Research Institute	Caspase-3 inhibitors	Alzheimers disease; Parkinsons disease; Liver disease; Cancer	Apoptosis inhibitor; Caspase-3 inhibitor; Retinoid modulator	Neuroprotectant; Anti-parkinsonian; Anticancer

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
148.	*Suspended (Discovery)	Sunesis Pharmaceuticals Inc	Caspase inhibitors	Neurodegenerative disease; Inflammation; Cardiovascular disease	Caspase inhibitor	Nootropic agent; Anti-inflammatory; Cardiovascular agent; Anti-apoptotic
149.	Discovery	Pfizer/Idun Pharmaceuticals Inc	Caspase inhibitors	Cerebrovascular ischemia; Ischemic heart disease	Caspase inhibitor	Apoptosis modulator; Neuroprotectant
150.	Discovery	Aeolus Pharmaceuticals Inc	Catalytic antioxidants	Mucositis; Chronic bronchitis; Motor neurone disease; Parkinsons disease; Asthma; Cerebrovascular ischemia; Cancer	Anticancer; Antioxidant agent	Radioprotectant
151.	Discovery	University of Toledo	CDD-0102	Alzheimers disease	Muscarinic M1 agonist	Nootropic agent
152.	Discovery	Cognitive Pharmaceuticals Ltd	CDD-0304	Cognitive disorder	Muscarinic M1 agonist	Nootropic agent
153.	Phase 3	Pfizer Inc	Celecoxib	Esophagus tumor; Keratosis; Non-small-cell lung cancer; Familial adenomatous polyposis; Alzheimers disease; Renal cell carcinoma; Pain; Osteoarthritis; Pancreas tumor; Prostate tumor; Rheumatoid arthritis; Non-Hodgkin lymphoma; Ankylosing spondylitis; Bladder tumor; Uterine cervix tumor; Breast tumor	Cyclooxygenase 2 inhibitor; Anticancer	Nootropic agent; Analgesic; Non-steroidal anti-inflammatory
154.	Phase 2	Titan Pharmaceuticals Inc/Bayer Schering	Cell therapy (dopamine producers; Parkinsons)	Parkinsons disease	Dopamine agonist	Neuroprotectant; Antiparkinsonian
155.	**Phase 2	National Institutes of Health	Cell transplant therapy (Parkinsons)	Parkinsons disease	Dopamine modulator	Antiparkinsonian
156.	**Discovery	Cephalon Inc	CEP-26401	Sleep disorder; Cognitive disorder	Histamine H3 receptor antagonist	Nootropic agent; Psychostimulant
157.	*No development reported/ discontinued (Discovery)	Cephalon Inc	CEP-4143	Neurodegenerative disease	Calpain inhibitor	Neuroprotectant
158.	Phase 1	Ceregene Inc	CERE-110	Alzheimers disease	NGF agonist; Adeno-associated virus based gene therapy	Nootropic agent
159.	*Phase 2 (Phase 1)	Ceregene Inc	CERE-120	Parkinsons disease; Neurological disease; Huntington chorea	Growth factor agonist; Adeno-associated virus based gene therapy; Ret tyrosine kinase receptor stimulator	Antiparkinsonian

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
160.	Discovery	Ceregene Inc	CERE-130	Motor neurone disease	Insulin-like growth factor agonist; Adeno-associated virus based gene therapy	Neuroprotectant
161.	Discovery	INSERM	Ciproxifan	Epilepsy; Alzheimers disease; Dementia	Histamine H3 antagonist	Anticonvulsant agent; Nootropic agent
162.	Discovery	Chronogen Inc	clk-1; former isp-1	Neurodegenerative disease; Cardiovascular disease; Cancer; Metabolic disorder; Toxicity	CLK1 protein tyrosine kinase inhibitor	Neuroprotectant; Photoprotectant; Metabolic modulator
163.	Discovery	Cenomed Pharmaceuticals Inc/ Medical College of Georgia	CM-2433	Alzheimers disease; Cognitive disorder	Acetylcholine receptor modulator; 5-HT 4 receptor modulator; Imidazoline receptor modulator; Acetylcholinesterase inhibitor; Nicotinic ACh agonist; TrkA receptor stimulator; ACh agonist	Neuroprotectant
164.	Discovery	Cogent Neuroscience Inc	CNIC-568	Neurodegenerative disease; Cerebro-vascular ischemia	Unspecified vector based gene therapy	Neuroprotectant
165.	Discovery	Cita Neuro-Pharmaceuticals Inc	CNP-1061; former GT-1061	Alzheimers disease; Seizure, epilepsy & convulsion	NO modulator	Nootropic agent; Anticonvulsant agent
166.	Phase 2	CeNeS Pharmaceuticals Inc/ Ergomed Group	CNS-5161	Neuropathic pain; Migraine; Pain	NMDA receptor antagonist	Analgesic
167.	Clinical	ReGen Therapeutics plc	Colostrinin	Alzheimers disease; Aging; Cancer	Amyloid protein deposition inhibitor	Immunomodulator; Antioxidant agent; Neuro-protectant
168.	Discovery	Pfizer Inc	CP-465022	Epilepsy; Parkinsons disease; Ischemia	AMPA receptor antagonist	Antiparkinsonian; Anti-convulsant agent
169.	**Discovery	CSL Behring	CSL-111	Sepsis; Atherosclerosis; Cerebrovascular ischemia	HDL cholesterol enhancer	Neuroprotectant
170.	Discovery	Creabilis Therapeutics SpA/Nautilus Biotech SA	CT-500	Autoimmune disease; Cardiovascular disease; Sepsis; Neurological disease; Infection; Cancer	Amyloid protein deposition inhibitor	Anticancer; Antimicrobial; Antibacterial
171.	Phase 2	Cortex Pharmaceuticals Inc/ NV Organon/Servier	CX-516	Fragile X syndrome; Alzheimers disease; Schizophrenia; Sleep disorder; Attention deficit hyperactivity disorder; Cognitive disorder; Male sexual dysfunction; Autism; Cerebrovascular ischemia; Major depressive disorder	AMPA receptor modulator	Neuroprotectant; Antidepressant; Antipsychotic

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
172.	Phase 2	University of California/Cortex/NV Organon/Servier	CX-717; former AMPAKINES	Fragile X syndrome; Alzheimers disease; Huntingtons chorea; Anxiety disorder; Sleep disorder; Attention deficit hyperactivity disorder; Cognitive disorder; Male sexual dysfunction; Cerebrovascular ischemia; Dementia	AMPA receptor modulator	Neuroprotectant; Nootropic agent; Antidepressant; Antipsychotic
173.	Discovery	Maas BiolAB LLC	Cyclosporin A (neuroprotectant)	Alzheimers disease; Huntingtons chorea; Motor neurone disease; Parkinsons disease; Cerebrovascular ischemia; Brain injury	Calcineurin modulator; Cytokine synthesis inhibitor	Neuroprotectant; Anti-parkinsonian;
174.	Discovery	Glytech Inc/ Massachusetts General Hospital	D-serine (schizophrenia/ Alzheimers disease/ autism)	Schizophrenia; Autism; Alzheimers disease	NMDA receptor agonist	Antipsychotic
175.	**Discovery	Memory Pharmaceuticals Corp	D-serine reuptake inhibitors	Alzheimers disease; Schizophrenia	NMDA receptor modulator; Neurotransmitter uptake inhibitor	
176.	Discovery	DarPharma Inc	DAR-201	Parkinsons disease; Schizophrenia; Attention deficit hyperactivity disorder	Dopamine D1 agonist	Antipsychotic; Antiparkinsonian
177.	Discovery	Alseres Pharmaceuticals Inc	DAT inhibitors; former BLS-602; BLS-605	Attention deficit hyperactivity disorder; Parkinsons disease	Dopamine uptake inhibitor	Antiparkinsonian
178.	**Phase 2	Development Centre for Biotechnology	DCB-AD1	Alzheimers disease		Neuroprotectant; Nootropic; Anti-inflammatory
179.	Discovery	DiverDrugs SL	DD-20207	Alzheimers disease; Parkinsons disease; Neuralgia	NMDA receptor modulator	Analgesic; Antiparkinsonian
180.	*Phase 2 (Phase 1)	Debiopharm SA	DEBIO-9902 (sc, sustained release implant); former ZT-1 (injectable, sustained release)	Alzheimers disease	Acetylcholinesterase inhibitor	Nootropic agent
181.	Discovery	Memorial Sloan-Kettering Cancer Center/Progenics Pharmaceuticals Inc	Dehydroascorbic acid (DHA)	Alzheimers disease; Neurodegenerative disease; Parkinsons disease; Cerebrovascular ischemia; Mucositis	Antioxidant agent	Neuroprotectant; Anti-inflammatory
182.	Discovery	Seoul University	Dehydroevodiamine	Dementia	Esterase inhibitor	Neuroprotectant
183.	*No development reported (Discovery)	Toray Industries Inc	Delta opioid antagonists; former Naltrindole derivatives	Neurodegenerative disease	Delta opioid antagonist	CNS modulator

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
184.	Phase 1	NPS Pharmaceuticals Inc	Delucemine	Cerebrovascular ischemia; Major depressive disorder	NMDA receptor antagonist	Neuroprotectant; Antidepressant
185.	Phase 3	Bayer Schering AG/ Forest Laboratories Inc/ H Lundbeck A/S	Desmoteplase	Lung embolism; Myocardial infarction; Cerebrovascular ischemia; Vascular disease	Fibrinolytic agent; Plasminogen activator stimulator	Neuroprotectant
186.	Phase 2	Hebrew University of Jerusalem/Pharmos Corp	Dexanabinol	Multiple sclerosis; Parkinsons disease; Cognitive disorder; Cerebrovascular ischemia; Brain injury	NMDA receptor antagonist; TNF- α synthesis inhibitor; Free radical scavenger	Nootropic agent; Anti-parkinsonian; Neuroprotectant
187.	**Pre-registration	Irysis Research and Development/ AVANIR Pharmaceuticals	Dextromethorphan + quinidine sulfate	Diabetic neuropathy; Neuropathic pain; Mood disorder	Drug metabolism modulator; NMDA receptor antagonist	Psycho-modulator; Analgesic
188.	Phase 2	Purdue Research Foundation	Dihydropyridine	Intracranial vasospasm; Parkinsons disease; Schizophrenia; Drug dependence; Respiratory distress syndrome	Dopamine D1 agonist	Anti-parkinsonian; Antipsychotic
189.	*No development reported/ discontinued (Discovery)	Bayer Schering Pharma AG	Dihydroquinolines	Neurodegenerative disease	NO synthesis inhibitor	Neuroprotectant
190.	Phase 2	Medivation Inc	Dimebon	Alzheimers disease; Huntingtons chorea	Acetylcholinesterase modulator; NMDA receptor modulator	Nootropic agent; Neuroprotectant
191.	*Discontinued (Phase 3)	Renovis Inc/ AstraZeneca plc	Disufenton	Neurodegenerative disease; Brain hemorrhage; Cerebrovascular ischemia	Free radical scavenger	Neuroprotectant; Antioxidant agent
192.	Discovery	Novasite Pharmaceuticals Inc	Dopamine D1 receptor agonists	Parkinsons disease; Schizophrenia; Restless legs syndrome	Dopamine D1 agonist; Dopamine uptake inhibitor	Antiparkinsonian
193.	*Phase 1 (Discovery)	GlaxoSmithKline plc	598809; former Dopamine D3 antagonists	Psychosis; Schizophrenia; Drug dependence	Dopamine D3 antagonist	Antipsychotic
194.	Discovery	Memory Pharmaceuticals Corp	Dopamine D5 receptor modulators	Parkinsons disease	Dopamine D5 receptor modulator	Antiparkinsonian
195.	Discovery	Organix Inc	Dopamine transporter ligand	Parkinsons disease; Schizophrenia; Cocaine addiction	Dopamine uptake inhibitor	Antipsychotic; Antiparkinsonian
196.	**Discovery	Purdue University	Doxanthrine	Parkinsons disease; Schizophrenia	Dopamine D1 agonist	Antipsychotic; Antiparkinsonian
197.	Discovery	D-Pharm Ltd	DP-109	Alzheimers disease; Neurodegenerative disease; Parkinsons disease	Chelating agent; Apoptosis modulator; Calcium metabolism modulator	Neuroprotectant
198.	**Discovery	D-Pharm Ltd	DP-460	Alzheimers disease; Motor neurone disease	Chelating agent	Neuroprotectant

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
199.	Phase 2	D-Pharm Ltd	DP-b99	Cerebrovascular ischemia; Epilepsy; Brain injury; Neurodegenerative disease	Chelating agent; Calcium metabolism modulator; Apoptosis modulator; Metalloprotease-2 inhibitor; Metalloprotease-9 inhibitor	Neuroprotectant; Anti-inflammatory; Anticonvulsant agent; Antioxidant agent
200.	Phase 2	D-Pharm Ltd	DP-VPA	Epilepsy; Bipolar disorder; Migraine	Derivative of valproic acid; GABA modulator; GABA receptor modulator	Anticonvulsant agent; Antidepressant
201.	Discovery	Meiji Seika Kaisha Ltd	DR-2313	Cerebrovascular ischemia	PARP inhibitor	Neuroprotectant
202.	Discovery	Korea Research Institute of Bioscience and Biotechnology	Dykellic acid	Immune disorder; Neurodegenerative disease; Cancer	Apoptosis inhibitor	Anticancer; Anti-apoptotic
203.	Phase 3	Eisai Co Ltd	E-2007	Epilepsy; Multiple sclerosis; Parkinsons disease; Migraine	AMPA receptor antagonist	Neuroprotectant; Anticonvulsant agent; Antiparkinsonian
204.	*Phase 1 (Discovery)	Eisai Co Ltd	E-2012	Alzheimers disease	Beta amyloid modulator; Gamma-secretase modulator	
205.	Discovery	Neurocrine Biosciences Inc/Wyeth Research	EAAT-2 inhibitors (CNS disorders)	Neurodegenerative disease; Schizophrenia; Cerebrovascular ischemia	Glutamate metabolism modulator; EAAT-2 inhibitor	Neuroprotectant; Antipsychotic
206.	Discovery	Wyeth Research	EAB-318	Epilepsy; Neurodegenerative disease; Cerebrovascular ischemia	NMDA receptor antagonist	Neuroprotectant; Anticonvulsant agent
207.	Discovery	NsGene A/S	ECT-AD	Alzheimers disease; Neurological disease	NGF agonist	Neuroprotectant
208.	Discovery	NsGene A/S	ECT-PD	Parkinsons disease	Neuronal growth factor receptor agonist; Ret tyrosine kinase receptor stimulator	Neuroprotectant
209.	Discovery	Universidad Complutense de Madrid	EF-7412	Neurodegenerative disease; Anxiety disorder; Major depressive disorder	Dopamine D2 antagonist; 5-HT 1a antagonist; Glutamate release inhibitor	Antidepressant; Anxiolytic
210.	Phase 3	Dr Willmar Schwabe GmbH & Co	EGb-761	Alzheimers disease; Parkinson disease	Free radical scavenger; Amyloid protein deposition inhibitor	Neuroprotectant
211.	Phase 1	ExonHIt Therapeutics SA	EHT-202	Neurodegenerative disease; Alzheimers disease	GABA A receptor modulator; PDE 4 inhibitor	Neuroprotectant;
212.	**Phase 2	Nippon Shinyaku Co Ltd/PAION AG	Enecadin	Cerebrovascular ischemia	Sodium channel blocker; Calcium channel blocker	Neuroprotectant
213.	Discovery	University of Tennessee Memphis	EP-475	Neurodegenerative disease	Calpain inhibitor	Neuroprotectant
214.	Phase 2	Mochida Pharmaceutical Co Ltd	Epadel; former MND-21	Alzheimers disease	Platelet aggression antagonist	Neuroprotectant; Antithrombotic

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
215.	Discovery	Wyeth Research	E-selectin inhibitors	Reperfusion injury; Inflammation; Psoriasis; Rheumatoid arthritis; Atherosclerosis; Cerebrovascular ischemia	E-Selectin antagonist	Neuroprotectant; Vasoprotectant; Anti-inflammatory
216.	Discovery	Novavax Inc	E-selectin tolerogen (stroke); former Vaccine (stroke)	Cerebrovascular ischemia	Vaccine; CD62E agonist	Neuroprotectant
217.	Discovery	MIGENIX	Estrogen analogs	Myocardial infarction; Cerebrovascular ischemia	Estrogen modulator; Hormone	Neuroprotectant; Cardiovascular agent
218.	Discovery	ACADIA Pharmaceuticals Inc	Estrogen receptor beta agonists	Inflammation; Pain	Estrogen receptor beta agonist	Pain modulator; Anti-inflammatory
219.	*No development reported/ discontinued (Discovery)	GlaxoSmithKline Inc	Estrogen receptor beta modulators (triazine)	Alzheimers disease; Osteoporosis; Atherosclerosis; Breast tumor	Estrogen receptor beta modulator	Anticancer; Antiarteriosclerotic; Nootropic agent
220.	Phase 1	Roche Holding AG	EVT-101	Neuropathic pain; Alzheimers disease; Parkinsons disease; Central nervous system disease	NMDA receptor antagonist	Neuroprotectant; Nootropic agent; Analgesic
221.	**Phase 2	Roche Holding AG	EVT-201	Neurological disease; Insomnia	GABA A receptor modulator	Hypnotic
222.	*Discontinued (Phase 1)	Roche Holding AG	EVT-301	Alzheimers disease	MAO B inhibitor	Neuroprotectant
223.	**Phase 1	Roche Holding AG	EVT-302	Alzheimers disease; Nicotine dependence	MAO B inhibitor	Neuroprotectant
224.	Discovery	ProteoTech Inc	Exebryl	Alzheimers disease	Amyloid protein deposition inhibitor	Neuroprotectant
225.	Discovery	Pierre Fabre SA	F-14413	Alzheimers disease	Alpha 2 adrenoceptor antagonist	Neuroprotectant
226.	Discovery	Tokyo Metropolitan Institute	F-2-CCG-I	Epilepsy; Neurodegenerative disease; Head injury	Metabotropic glutamate receptor modulator	Anticonvulsant agent
227.	Phase 2	Cortex Pharmaceuticals Inc/ NV Organon	Farampator; former Org-24448	Schizophrenia; Major depressive disorder; Alzheimers disease	AMPA receptor modulator	Antidepressant; Antipsychotic; Neuroprotectant
228.	Phase 1	Enkam Pharmaceuticals A/S	FGLL	Alzheimers disease	Beta amyloid modulator; FGF receptor modulator; CNS modulator	Neuroprotectant
229.	Phase 2	Juventus Pharma Ltd	Fipamezole	Parkinsons disease	Alpha 2 adrenoceptor antagonist	Antiparkinsonian
230.	**Discovery	Astellas Pharma Inc	FK-1706	Neurological disease	NGF agonist; MAP kinase stimulator	Neuroprotectant
231.	*No development reported/ discontinued (Discovery)	Kosan Biosciences Inc	FK-520 analogs	Neurological disease	NGF agonist	Immuno-suppressant; Neuroprotectant
232.	*Discontinued (Phase 2)	Fujisawa Pharmaceutical Co Ltd	FK-962	Alzheimers disease	5-HT agonist	Nootropic agent

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
233.	Discovery	Pfizer Inc	FKBP inhibitors	Alzheimers disease; Neurodegenerative disease; Parkinsons disease; Peripheral neuropathy	Molecular chaperones; Inhibition of protein aggregation	Anti-parkinsonian; Immuno-suppressant
234.	Phase 1	Harvard University	Fluoratec	Parkinsons disease; Attention deficit hyperactivity disorder; Neurological disease	Dopamine uptake modulator	SPECT contrast agent
235.	Discovery	Astellas	FR-210575	Cerebrovascular ischemia	Free radical scavenger	Neuroprotectant
236.	**Phase 1	Merck Sharp & Dohme Ltd	GABA-A alpha-2/alpha-3 agonists (anxiolytics)	Anxiety disorder	GABA-A receptor alpha-2 subunit stimulator; GABA-A receptor alpha-3 subunit stimulator; Benzodiazepine receptor agonist	Anxiolytic
237.	**Discovery	University of Wisconsin-Milwaukee/ Merck Sharp & Dohme Ltd/Eli Lilly and Co	GABA-A antagonists	Anxiety disorder; Alcoholism; Amnesia	GABA-A receptor antagonist	Anxiolytic
238.	*Phase 1 (Discovery)	Merck Sharp & Dohme Ltd	GABA modulators (cognitive disorders)	Neurological disease; Cognitive disorder	GABA-A modulator	Nootropic agent
239.	*Phase 3 (Phase 2)	XenoPort Inc	Gabapentin enacarbil; former XP-13512	Neuralgia; Neuropathic pain; Restless legs syndrome; Neurological disease	GABA modulator	Analgesic; Anticonvulsant agent
240.	Discovery	Synaptica Ltd/ Sanochemia Pharmazeutika AG	Galantamine derivatives	Alzheimers disease	Acetylcholinesterase inhibitor	Nootropic agent; Cognition enhancer
241.	Discovery	Ceregene Inc	GDNF gene therapy (PD/HD)	Parkinsons disease; Huntingtons chorea	Neuronal growth factor; Ret tyrosine kinase receptor stimulator	Antiparkinsonian
242.	Discovery	Centelion SAS/CNRS	Gene therapy (GDNF)	Parkinsons disease	Adenovirus based gene therapy	Neuroprotectant Antiparkinsonian
243.	Discovery	Centre Hospitalier Universitaire Vaudois/ University of Zurich	Gene therapy (ALS)	Motor neurone disease	Viral vector based gene therapy; bcl-2 gene transfer	Apoptosis inhibitor; Neuroprotectant
244.	Discovery	Oxford BioMedica plc	Gene therapy (Parkinsons disease)	Parkinsons disease	Dopamine synthesis stimulant; Retrovirus based gene therapy; GTP cyclohydrolase-I stimulator; Tyrosine hydroxylase stimulator; Dopa decarboxylase stimulator	Anti-parkinsonian; Dopamine modulator
245.	Phase 2	PN Gerolymatos SA	Gero-46	Alzheimers disease	Chelating agent; Beta amyloid modulator	Neuroprotectant
246.	Discovery	CeNeS Pharmaceuticals Inc; Acorda Therapeutics Inc	GGF-2	Diabetic neuropathy; Multiple sclerosis; Muscular dystrophy; Retinopathy; Breast tumor; Myasthenia gravis; Hearing disorder	NGF agonist; Growth factor; Neuregulin-1 ligand	Neuroprotectant

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
247.	Discovery	MGI Pharma Inc	Glutamate carboxypeptidase II inhibitors; former NAALADase inhibitors	Diabetic neuropathy; Spinal cord injury; Neuropathic pain; Neurodegenerative disease; Head injury; Peripheral neuropathy; Prostate tumor; Drug dependence; Neuropathy	Glutamate carboxypeptidase II inhibitor	Anticancer; Neuroprotectant; Anticonvulsant agent
248.	Discovery	Glaxo Wellcome SpA	Glycine antagonists	Epilepsy; Pain; Schizophrenia; Cerebrovascular ischemia; Head injury	Glycine antagonist; NMDA receptor antagonist	Neuroprotectant; Antipsychotic; Analgesic; Anticonvulsant agent
249.	Discovery	Eli Lilly & Co	Glycine transporter inhibitors	Schizophrenia	Glycine transport inhibitor	Antipsychotic
250.	**Discovery	Novartis	Glycogen synthase kinase-3 inhibitors	Cerebrovascular ischemia; Non-insulin dependent diabetes	Apoptosis inhibitor; Glycogen synthase kinase-3 beta inhibitor	Neuroprotectant; Hypoglycemic agent
251.	Discovery	Yuyu Inc/ CrystalGenomics Inc	Glycogen synthase kinase-3beta inhibitors	Alzheimers disease; Diabetes mellitus	Glycogen synthase kinase-3 alpha inhibitor; Glycogen synthase kinase-3 beta inhibitor	Hypoglycemic agent; Neuroprotectant
252.	**Discovery	Amphora Discovery Corp	Glycogen synthase kinase-3beta inhibitors	Pain; Neurodegenerative disease	CNS modulator; Glycogen synthase kinase-3 beta inhibitor	Neuroprotectant; Analgesic
253.	Phase 1	NPS Allelix/Janssen Pharmaceutica NV	GlyT-1 inhibitors	Schizophrenia; Dementia	Glycine transporter-1 inhibitor; Glycine reuptake inhibitor	Antipsychotic
254.	Discovery	Pfizer	GMC-1111	Parkinsons disease; Schizophrenia	Dopamine D2 agonist	Anti-parkinsonian; Antipsychotic
255.	Phase 2	MGI Pharma Inc/ Symphony Neuro Development Co	GPI-1485	Parkinsons disease; Erectile dysfunction; HIV associated dementia	Neuroimmunophilin	Anti-parkinsonian; Anti-inflammatory
256.	**Phase 1	Wyeth	GSI-953	Alzheimers disease	Amyloid protein deposition inhibitor; Gamma-secretase inhibitor	Nootropic agent
257.	**Phase 1	GlaxoSmithKline plc	GSK-189254A	Schizophrenia; Dementia	Histamine H3 receptor antagonist	Nootropic agent; Antipsychotic
258.	*No development reported (Discovery)	GlaxoSmithKline plc	GSK-3 inhibitors	Neurodegenerative disease; Non-insulin dependent diabetes	Hypoglycemic agent; Glycogen synthase kinase-3 beta inhibitor	Neuroprotectant
259.	Discovery	AstraZeneca AB	GSK-3 inhibitors	Alzheimers disease	Glycogen synthase kinase family inhibitor	Neuroprotectant
260.	**Phase 1	GlaxoSmithKline plc	GSK-933776A	Alzheimers disease		Nootropic agent
261.	**Phase 2	CoMentis Inc	GTS-21	Alzheimers disease; Schizophrenia; Attention deficit hyperactivity disorder; Cognitive disorder	Nicotinic ACh receptor agonist	Nootropic agent

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
262.	Discovery	Bioprojet, Societe Civile de Recherche/ Berlin Free University/ University College London/INSERM	H3 antagonists	Psychiatric disorder; Neurological disease	Histamine H3 antagonist	Antipsychotic; Hypnotic; Anticonvulsant agent
263.	**Discovery	Schering-Plough Research Institute	H3 antagonists	Epilepsy; Allergy; Sleep disorder; Cognitive disorder	Histamine H3 antagonist	Anticonvulsant agent
264.	**Discovery	GlaxoSmithKline plc	H3 antagonists (cognitive disorders)	Cognitive disorder	Histamine H3 antagonist	Nootropic agent
265.	*Phase 2 (Phase 1)	Hunter-Fleming Ltd	HF-0220	Alzheimers disease; Inflammation; Neurodegenerative disease; Cerebrovascular ischemia; Head injury	7-hydroxysteroid pathway modulator; Prostaglandin D synthase stimulator	Neuroprotectant; Cardioprotectant; Steroidal anti-inflammatory
266.	**Phase 1	Loyola University of Chicago/Hunter-Fleming Ltd	HF-0420	Spinal cord injury; Alzheimers disease; Dementia	Heparin modulator	Neuroprotectant; Nootropic agent
267.	Discovery	Curis Inc/Wyeth Pharmaceuticals	Hh agonists	Diabetic neuropathy; Infertility; Parkinsons disease; Bone disease; Neurological disease	Hedgehog protein agonist	Neuroprotectant; Antiparkinsonian
268.	*No development reported (Discovery)	Kyorin Pharmaceutical Co Ltd	Himbacine analogs	Alzheimers disease	Muscarinic M2 antagonist	Nootropic agent
269.	**Discovery	Abbott laboratories	Histamine H3 antagonists	Obesity; Attention deficit hyperactivity disorder; Cognitive disorder; Central nervous system disease	Histamine H3 receptor antagonist	Appetite suppressant; Nootropic agent; CNS modulator
270.	**Discovery	Eli Lilly & Co	Histamine H3 antagonists (psychotic disorders)	Psychosis	Histamine H3 receptor antagonist	Antipsychotic
271.	Discovery	MethylGene Inc/ EnVivo Pharmaceuticals Inc	Histone deacetylase inhibitors	Neurodegenerative disease	Histone deacetylase inhibitor	
272.	*No development reported (Phase 2)	Sanofi-Aventis	HP-184	Spinal chord injury; Alzheimers disease; Cognitive disorder	Potassium channel blocker; Sodium channel blocker; Acetylcholine release stimulator	Neuroprotectant
273.	*Phase 1 (Discovery)	Roche AG	HuCAL anti-beta amyloid monoclonal antibodies (Alzheimers)	Alzheimers disease	Beta amyloid modulator; Beta amyloid antagonist	Immuno-diagnostic agent
274.	Discovery	Lay Line Genomics SpA	huIM-13	Alzheimers disease	TrkA receptor modulator	CNS diagnostic agent
275.	Discovery	Keio University/ Neurologix Inc	Humanin gene therapy (Alzheimers)	Alzheimers disease	Gene therapy	Neuroprotectant; Nootropic agent
276.	Discovery	Probiobdrug AG	Human glutaminy cyclase inhibitors (Alzheimers disease)	Alzheimers disease	Amyloid protein deposition inhibitor	

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
277.	*Phase 1 (Discovery)	StemCells Inc	Human neural stem cell therapy	Central nervous system disease; Spinal cord injury; Batten disease; Neurodegenerative disease		Neuroprotectant; Nootropic agent
278.	Discovery	Institute Henri Beaufour	Huntingtons disease therapy	Huntingtons chorea	Cyclooxygenase 2 inhibitor; Sodium channel blocker; Cyclooxygenase 1 inhibitor	Antioxidant agent
279.	Phase 2	Georgetown University/Neuro Hi-Tech/Mayo Foundation	Huperzine A	Alzheimers disease	Acetylcholinesterase modulator; NMDA receptor antagonist	Nootropic agent; Neuroprotectant
280.	Discovery	Neuro-Hitech/Xel Herbaceuticals	Huperzine A (transdermal, Alzheimers disease)	Alzheimers disease	Acetylcholinesterase modulator	Nootropic agent
281.	**Discovery	Novartis	Huperzine A analogs	Alzheimers disease	Acetylcholinesterase inhibitor	
282.	**Discovery	Shanghai Institute of Materia Medica	Huperzine A analogs (Alzheimers disease)	Alzheimers disease	Acetylcholinesterase inhibitor	Nootropic agent
283.	*Phase 2 (Discovery)	Avigen Inc	Ibudilast; former AV-411	Neurodegenerative disease; Neuropathic pain; Drug dependence	Analgesic; Anti-inflammatory; IL-1 beta antagonist; TNF alpha antagonist	Neuroprotectant; Analgesic
284.	Discovery	Prescient NeuroPharma Inc	IGT-440103	Cerebrovascular ischemia; Head injury	Metabotropic glutamate receptor agonist	Neuroprotectant
285.	Phase 3	Vanda Pharmaceuticals Inc/Novartis AG/Titan Pharmaceuticals Inc	Iloperidone	Psychosis; Schizophrenia; Bipolar disorder	Dopamine D2 antagonist; 5-HT 2a antagonist	Antipsychotic; Antidepressant
286.	Discovery	Janssen Farmaceutica SA (Spain)	Imidazole derivatives	Brain Injury	AMPA receptor ligand inhibitor	Neuroprotectant
287.	Discovery	Servier	Imidazolyl nitrones	Nervous system injury; Neurodegenerative disease	Free radical scavenger	Neuroprotectant; Antioxidant agent
288.	Discovery	AlphaRx Inc	Immunomodulators; former ARX-2000; -2001; -2002	Inflammation; Neurodegenerative disease; Immune deficiency	Immunomodulators	Immuno-stimulant; Anti-inflammatory
289.	Phase 2	Chiesi Farmaceutici SpA	Indantadol; former CHF-3381	Neuropathic pain, Epilepsy; Pain; Parkinsons disease; Cerebrovascular ischemia	MAO A inhibitor; MAO B inhibitor; NMDA receptor antagonist	Neuroprotectant; Analgesic; Anti-parkinsonian; Anticonvulsant agent
290.	Phase 2	Vernalis plc/Chiesi Farmaceutici SpA	Indantadol; former GT-3381	Epilepsy; Pain; Neuropathic pain; Parkinsons disease; Cerebrovascular ischemia	MAO A inhibitor; MAO B inhibitor; NMDA receptor antagonist	Neuroprotectant; Analgesic; Anti-parkinsonian; Anticonvulsant agent; Nootropic agent
291.	**Discovery	Pharmadigm	INFLABLOC	Reperfusion injury; Cerebrovascular ischemia	Androgen receptor agonist	Vasoprotectant

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
292.	Phase 2	Inotek Pharmaceuticals Corp	INO-1001	Nervous system injury; Reperfusion injury; Colitis; Glioma; Sepsis; Melanoma; Multiple sclerosis; Myocardial infarction; Arthritis; Uveitis; Breast tumor; Ovary tumor; Cancer; Diabetes mellitus; Diabetic complication	PARP inhibitor	Neuroprotectant; Anticancer; Cardioprotectant; Anti-inflammatory
293.	Discovery	Childrens hospital of Boston/Alseres Pharmaceuticals	Inosine	Neurodegenerative disease; Glaucoma; Cerebrovascular ischemia; Spinal cord injury	NGF agonist; Adenosine precursor	Neuroprotectant; Antiglaucoma agent
294.	*No development reported (Phase 2)	Nippon Chemiphar Co Ltd	Ipenoxazone	Alzheimers disease; Neurodegenerative disease; Middle ear disease	NMDA receptor antagonist; Ionotropic glutamate receptor antagonist; Calcium channel blocker	Smooth muscle relaxant
295.	Phase 2	NPS Pharmaceuticals Inc	Isovaleramide; former NPS-1776	Epilepsy; Migraine; Psychiatric disorder; Neurological disease; Bipolar disorder	Calcimimetic compound	Antidepressant; Anxiolytic; Antipsychotic; Analgesic; Anticonvulsant agent
296.	Phase 2	Targacept Inc	Ispronidine; former TC-1734	Cognitive disorder	Nicotinic ACh modulator	Neuroprotectant; Nootropic agent
297.	*Pre-registration (Phase 3)	Kyowa Hakko Kogyo Co Ltd	Istradefylline	Parkinsons disease; Major depressive disorder; Restless legs syndrome	Adenosine A2a antagonist	Antidepressant; Antiparkinsonian
298.	Discovery	Celgene Corp	JNK inhibitors	Inflammation; Neurodegenerative disease; Liver disease; Ischemia; Pulmonary fibrosis; Cancer; Asthma	Jun N terminal kinase-1 inhibitor; Jun N terminal kinase-2 inhibitor; Jun N terminal kinase-3 inhibitor	Vasoprotectant; Anti-inflammatory; Anticancer; Angiogenesis inhibitor; Anti-convulsant agent
299.	**Discovery	AstraZeneca plc	JNK-3 inhibitors	Neurodegenerative disease	Jun N terminal kinase-3 inhibitor	Neuroprotectant
300.	Discovery	Wyeth Research	KChIP/Kv4.3 modulators (stroke/epilepsy/neuropathic pain)	Cerebrovascular ischemia; Epilepsy; Neuropathic pain	Potassium channel modulator	
301.	**Discovery	H Lundbeck A/S	KCNQ2 potassium channel modulators (epilepsy)	Epilepsy	KCNQ voltage-gated potassium channel-2 modulator	Anticonvulsant agent
302.	*Phase 2 (Phase 1)	Bayer AG	KN-38-7271; former BAY-38-7271	Cerebrovascular ischemia; Brain injury	Cannabinoid agonist	Neuroprotectant; Analgesic
303.	Discovery	Kyorin Pharmaceutical Co Ltd	KRP-199	Cerebrovascular ischemia	AMPA receptor antagonist	Neuroprotectant
304.	Discovery	Keryx Bio-pharmaceuticals Inc	KRX-411	Neurodegenerative disease	Protein kinase modulator	Neuroprotectant

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
305.	**Phase 2	Merck & Co Inc	L-830982	Anxiety disorder; Schizophrenia	GABA A receptor alpha-2 subunit stimulator; GABA A receptor alpha-3 subunit stimulator	Anxiolytic; Antipsychotic
306.	*Pre-registration (Phase 3)	Harris FRC Corp/ Schwarz Pharma AG	Lacosamide	Epilepsy; Neuropathic pain; Migraine; Osteoarthritis	Modulate GABA and glutamate neurotransmission through a yet to be determined mechanism	Analgesic; Anticonvulsant agent
307.	Discovery	Yamanouchi Pharmaceutical Co Ltd	Lactacystin	Alzheimers disease	Proteasome inhibitor	Neuroprotectant
308.	Phase 2	Hebrew University of Jerusalem/Teva Pharmaceutical Industries Ltd	Ladostigil	Alzheimers disease	Acetylcholinesterase inhibitor; MAO B inhibitor	Neuroprotectant; Nootropic agent
309.	*Pre-registration (Phase 3)	GlaxoSmithKline plc	Lamotrigine (extended release); former Lamictal XR	Epilepsy; Neuropathic pain; Schizophrenia	Sodium channel blocker; Glutamate release inhibitor	Neuroprotectant; Antipsychotic; Anticonvulsant agent
310.	Discovery	Louisiana University	LAU-0501	Alzheimers disease; Parkinsons disease	Cyclooxygenase 2 inhibitor; Non-steroidal anti-inflammatory	Anti-inflamatroy; Antiparkinsonian
311.	Discovery	Louisiana State University	LAU-8080	Cerebrovascular ischemia	Platelet aggregation inhibitor; PAF antagonist	Neuroprotectant
312.	Phase 3	Scotia Holdings plc	LAX-101	Huntingtons chorea; Parkinson disease; Schizophrenia; Bipolar disorder; Major depressive disorder	Phospholipase inhibitor	Antidepressant; Antipsychotic; Antiparkinsonian
313.	Phase 2	Wyeth	Lecozotan; former SRA-333	Alzheimers disease	5-HT 1a antagonist	Nootropic agent
314.	Discovery	Renovis Inc	Leukocyte trafficking inhibitors (neurodegenerative disease)	Neurodegenerative disease	Leukocyte trafficking inhibitors	Neuroprotectant; Anti-inflammatory
315.	Phase 3	Voyager Pharmaceutical Corp / DURECT Corp	Leuprolide acetate implant (Alzheimers disease)	Alzheimers disease	GNRH agonist	Nootropic agent
316.	Discovery	Advanced Plant Pharmaceuticals Inc	LHM-123	Alzheimers disease	No information available	Neuroprotectant
317.	Discovery	Fidia-Georgetown Institute for Neurosciences	LIGA-20	Neurodegenerative disease; Cerebrovascular ischemia	Excitatory amino acid antagonist	Neuroprotectant
318.	Discovery	OXIS International Inc	Lipid soluble antioxidants	Alzheimers disease; Parkinsons disease; Central nervous system disease	Antioxidant	Antiparkinsonian
319.	Phase 2	Dainippon Sumitomo Pharma Co Ltd	Lurasidone; former SM-13496	Schizophrenia	5-HT 2 antagonist; Dopamine D2 antagonist	Antipsychotic

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
320.	**Phase 1	Lexicon Pharmaceuticals Inc	LX-6171	Cognitive disorder	Inhibitor of the LG617 receptor; CNS modulator	Nootropic
321.	Discovery	University of Chicago; Anagen Therapeutics	LXR agonists	Alzheimers disease; Atherosclerosis; Lipid metabolism disorder	Lipid metabolism modulator; Liver X receptor agonist; Cholesterol modulator; Cardiac agent	Neuroprotectant
322.	Phase 2	Eli Lilly & Co	LY-354740	Neurodegenerative disease; Epilepsy; Nicotine dependence; Anxiety disorder; Drug dependence; Central nervous system disease	Metabotropic glutamate receptor 2 agonist; Metabotropic glutamate receptor 3 agonist	Anxiolytic; Anticonvulsant agent
323.	Phase 2	Eli Lilly & Co	LY-450139	Alzheimers disease	Beta amyloid synthesis inhibitor; Gamma-secretase inhibitor; Aspartic protease inhibitor	Neuroprotectant
324.	*Phase 2 (Phase 1)	Eli Lilly & Co	LY-451395	Alzheimers disease; Neurodegenerative disease	AMPA receptor agonist	Neuroprotectant
325.	Discovery	Eli Lilly & Co	LY-483518	Alzheimers disease; Anxiety disorder; Psychosis; Schizophrenia; Cognitive disorder	5-HT 6 antagonist	Nootropic agent; Anxiolytic; Antipsychotic
326.	**Discovery	Technion Research & Development Foundation Ltd/ Weizmann Institute of Science	M-30	Alzheimers disease; Parkinsons disease	Iron chelator; MAO inhibitor	Nootropic agent; Antiparkinsonian
327.	Discovery	MetaPhore Pharmaceuticals Inc	M-40401	Reperfusion injury; HIV infection; Parkinsons disease; Shock; Encephalitis; Cerebrovascular ischemia	Viral replication inhibitor; Apoptosis inhibitor; Superoxide dismutase stimulator; HIV replication inhibitor	Neuroprotectant
328.	Phase 3	Medicure Inc	MC-1	Reperfusion injury; Myocardial infarction; Cerebrovascular ischemia; Hypercholesterolemia	Purinoceptor antagonist; Vitamin B6	Cardioprotectant; Antihypercholesterolemic agent
329.	Discovery	Medicure Inc	MC-45228	Reperfusion injury; Cerebrovascular ischemia; Ischemia	Factor IIa antagonist; Factor Xa antagonist	Neuroprotectant; Coagulation inhibitor
330.	Discovery	Medicure Inc	MC-45308	Thrombosis; Heparin induced thrombocytopenia; Lung embolism; Peripheral arterial occlusive disease; Myocardial infarction; Cerebrovascular ischemia	Protease inhibitor; Factor IIa antagonist; Factor Xa antagonist; Platelet aggregation inhibitor	Coagulation inhibitor; Neuroprotector

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
331.	Discovery	Medicure Inc	MC-5422	Reperfusion injury; Cerebrovascular ischemia; Ischemia	Reduction of infarct size	Cardioprotectant; Neuroprotectant
332.	*Phase 2 (Discovery)	Mitsubishi-Tokyo Pharmaceuticals Inc	MCC-257	Diabetic neuropathy; Neurodegenerative disease	NGF agonist	Neuroprotectant
333.	Discovery	Arachnova Ltd	MCI-225	Functional bowel disorder; Incontinence; Irritable bowel syndrome; Pain	5-HT 3 antagonist; Norepinephrine uptake inhibitor; 5-HT uptake inhibitor	Gastrointestinal system agent; Analgesic
334.	Phase 2	Bayer AG/Memory Pharmaceuticals Corp	MEM-1003	Alzheimers disease; Neurodegenerative disease; Cognitive disorder; Central nervous system disease; Dementia; Mania; Bipolar disorder	Calcium channel blocker (L-type)	Neuroprotectant; Nootropic agent; Psychosedative
335.	Phase 2	Memory Pharmaceuticals Corp	MEM-1414	Alzheimers disease	PDE 4 inhibitor	Nootropic agent; Neuroprotectant
336.	**Discovery	Memory Pharmaceuticals Corp	MEM-1917	Alzheimers disease; Major depressive disorder	PDE 4 inhibitor	Nootropic agent; Antidepressant
337.	*Phase 2 (Phase 1)	Memory Pharmaceuticals Corp	MEM-3454; former Alpha-7 partial agonists	Alzheimers disease; Schizophrenia; Central nervous system disease	Nicotinic ACh modulator; 5-HAT 3 antagonist	Nootropic agent; Antipsychotic
338.	**Discovery	Memory Pharmaceuticals Corp	MEM-63908	Alzheimers disease; Central nervous system disease	Nicotinic Ach receptor modulator	Nootropic agent
339.	Discovery	NeuroMolecular Pharmaceuticals Inc	Memantine derivatives (neurodegenerative diseases)	Neuropathic pain; Alzheimers disease	NO synthesis stimulator; NMDA receptor antagonist	Neuroprotectant; Analgesic
340.	Discovery	Universita di Bologna/Lay Line Genomics SpA	Memoquin	Alzheimers disease	Acetylcholinesterase inhibitor; Muscarinic M2 antagonist; Amyloid protein deposition inhibitor	Neuroprotectant
341.	Discovery	Prescient NeuroPharma Inc	Mesencephalic astrocyte-derived neurotrophic factor	Parkinsons disease	NGF receptor agonist	Neuroprotectant; Antiparkinsonian
342.	Discovery	Eli Lilly & Co	Metabotropic glutamate receptor agonists	Neurodegenerative disease; Anxiety disorder; Pain; Epilepsy; Schizophrenia; Drug dependence	Metabotropic glutamate receptor 2 agonist; Metabotropic glutamate receptor 3 agonist	Anxiolytic; Analgesic; Antipsychotic; Anticonvulsant agent
343.	Discovery	Taisho Pharmaceutical Co Ltd/Merck & Co Inc	Metabotropic glutamate receptor ligands	Psychosis; Schizophrenia; Major depressive disorder	Metabotropic glutamate receptor agonist; Metabotropic glutamate receptor antagonist	Antipsychotic
344.	Discovery	Pharmacyclics Inc	Metallotexaphyrins	Motor neurone disease	Chelating agent	Neuroprotectant
345.	Discovery	F Hoffmann-La Roche Ltd	mGluR1 modulator	Alzheimers disease; Central nervous system disease; Dementia	Metabotropic glutamate receptor 1 modulator	Neuroprotectant

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
346.	Discovery	Merck Research Laboratories/Seaside Therapeutics	mGluR5 antagonists	Fragile X syndrome; Neurological disease	Metabotropic glutamate receptor 5 antagonist	Antidepressant; Anxiolytic; Analgesic
347.	Discovery	Addex Pharmaceuticals SA	mGluR5 positive modulators; former ADX-4	Anxiety disorder; Cognitive disorder; Infertility; Prostate tumor	Positive allosteric modulators of the metabotropic glutamate 5 (mGlu5) receptor	Nootropic agent; Anxiolytic; Anticancer
348.	Discovery	Prescient NeuroPharma Inc	mGluR agonists	Neurodegenerative disease; Anxiety disorder; Ischemia	Metabotropic glutamate receptor agonist	Neuroprotectant; Anxiolytic
349.	**Discovery	Royal Danish School of Pharmacy/ NeuroScience	mGluR agonists	Psychiatric disorder; Neurological disease	Metabotropic glutamate receptor 1 agonist; Metabotropic glutamate receptor 2 agonist; Metabotropic glutamate receptor 5 agonist; Metabotropic glutamate receptor 3 agonist	Neuroprotectant
350.	*No development reported/ discontinued (Discovery)	Mera Pharmaceuticals Inc/Albany Molecular Research	Microalgal-derived compound	Age related macular degeneration; Hypercholesterolemia; Neurodegenerative disease; Cancer	Antioxidant	Anticancer; Anti-hypercholesterolemic agent; Neuroprotectant
351.	*Phase 3 (Phase 2)	Corcept Therapeutics Inc	Mifepristone (depression)	Alzheimers disease; Psychosis; Major depressive disorder; Weight gain	Glucocorticoid antagonist; Progesterone antagonist	Antidepressant; Antipsychotic
352.	Discovery	Molecular Insight Pharmaceuticals Inc	MIP-170D	Parkinsons disease; Attention deficit hyperactivity disorder; Central nervous system disease	Imaging agent	Radiodiagnostic
353.	Phase 2	University of Otago/ Antipodean Pharmaceuticals Inc	Mitoquinone/ mitoquinol redox mixture; former MitoQ	Alzheimers disease; Parkinsons disease; Retinopathy; Ischemic heart disease; Ataxia; Liver disease	An orally active mitochondria-targeted antioxidant based on Coenzyme Q10 (ubiquinone) that selectively blocks mitochondrial oxidative damage and prevents cell death	Neuroprotectant; Anti-parkinsonian; Antioxidant agent; Anti-inflammatory
354.	**Phase 2	Merck & Co Inc	MK-0249	Alzheimers disease; Psychiatric disorder		Neuroprotectant; Antipsychotic
355.	Phase 1	Merck & Co Inc	MK-0752; former c-7617	Alzheimers disease; T-cell acute lymphoblastic leukemia; Breast tumor; Cancer	CNS modulator; Gamma-secretase inhibitor; Notch antagonist	Neuroprotectant; Anticancer; CNS modulator
356.	Phase 1	Merck & Co Inc	MK-0952	Alzheimers disease	CNS modulator	Neuroprotectant
357.	Phase 2	Merck & Co Inc	MK-677; former c-9136	Alzheimers disease; Myalgia; Bone injury Endocrine disease; Growth disorder; Burns	CNS modulator; Growth hormone releasing factor	Neuroprotectant

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
358.	Phase 2	Mitsubishi-Tokyo Pharmaceuticals Inc	MKC-231	Alzheimers disease; Cerebrovascular ischemia; Amnesia	Choline uptake enhancer	Neuroprotectant; Nootropic agent
359.	Discovery	Cephalon Inc/Kyowa hakko Kogyo Co Ltd	MLK inhibitors	Neurodegenerative disease; Parkinsons disease	Protein kinase inhibitor	Neuroprotectant; Antiparkinsonian
360.	**Discovery	Sapporo Medical University	Modified mesenchymal stem cell therapy	Cerebrovascular ischemia	Stem cell therapy	Neuroprotectant
361.	**Discovery	Biopharm GmbH	MP52	Parkinsons disease	TGF beta modulator; Growth factor agonist; Bone morphogenetic protein-14 ligand	Antiparkinsonian
362.	Discovery	ImaRx Therapeutics Inc	MRX-820	Cerebrovascular ischemia; Cardiovascular disease	Coagulation inhibitor	
363.	Phase 1	Santen Pharmaceutical Co Ltd	Msc-1	Spinal cord injury; Alzheimers disease; Cognitive disorder; Drug dependence; Cerebrovascular ischemia; Brain injury; Dementia; Major depressive disorder; Multiple sclerosis	Sigma opioid agonist	Neuroprotectant; Antidepressant
364.	Discovery	ACADIA Pharmaceuticals Inc	Muscarinic M1 agonists	Alzheimers disease; Schizophrenia	Muscarinic M1 agonist	Nootropic agent; Antipsychotic
365.	Discovery	Eli Lilly & Co	Muscarinic M1 agonists	Alzheimers disease;	Muscarinic M1 agonist	Nootropic agent
366.	Discovery	Northwestern University	MW01-2-151WH	Alzheimers disease	IL-1 beta antagonist; CNS modulator; TNF alpha synthesis inhibitor	
367.	Discovery	EpiCept	MX-1013	Sepsis; Hepatitis; Bacterial infection; Cerebrovascular ischemia; Degeneration	Caspase inhibitor	Antibacterial; Neuroprotectant
368.	Phase 1	MIGENIX	MX-4509	Alzheimers disease; Retinitis pigmentosa; Parkinsons disease; Cognitive disorder; Ataxia; Neurological disease	Estrogen agonist	Neuroprotectant; Antiparkinsonian
369.	Discovery	MIGENIX	MX-4565; former MITO-4565	Glaucoma; Retinitis pigmentosa; Parkinsons disease	Apoptosis inhibitor	Neuroprotectant; Antiglaucoma agent; Antiparkinsonian
370.	Discovery	Dainippon Sumitomo Pharma Co Ltd	Na ⁺ /H ⁺ exchange inhibitors	Reperfusion injury; Cerebrovascular ischemia; Angina	H ⁺ K ⁺ ATPase inhibitor; Na ⁺ H ⁺ ion exchange inhibitor	Neuroprotectant; Cardioprotectant; Vasoprotectant; Vasodilatory agent
371.	Discovery	National Institutes of Health	NAPVSIPQ	Neurodegenerative disease	Antioxidant agent	Neuroprotectant

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
372.	*No development reported (Clinical)	Neurocrine Biosciences Inc	NBI-30702	Cerebrovascular ischemia	ACTH releasing factor antagonist	Neuroprotectant
373.	*No development reported (Discovery)	NicOx SA	NCX-2216	Alzheimers disease	Cyclooxygenase inhibitor; Non-steroidal anti-inflammatory; NO donor	Antioxidant agent
374.	Phase 2	Taisho Pharmaceutical Co Ltd	NE-100	Psychosis; Schizophrenia	Sigma-1 opioid antagonist	Antipsychotic
375.	*Phase 2 (Phase 1)	BIAL Group	Nebicapone; former BIA-3-202	Parkinsons disease	COMT inhibitor	Antiparkinsonian
376.	Discovery	Osaka Bioscience Institute	NEPP-10	Alzheimers disease	Cyclopentenone prostaglandin analogs; Neurite outgrowth-promoting prostaglandins (NEPPs)	Nootropic agent; Antioxidant agent
377.	Phase 3	Merz & Co GmbH/ Forest Laboratories Inc	Neramexane	Alcoholism; Alzheimers disease; Pain; Parkinsons disease; Drug dependence; Central nervous system disease; Cerebrovascular ischemia; Tinnitus	NMDA receptor antagonist	Neuroprotectant; Analgesic; Antiparkinsonian
378.	**Discovery	Neurotech Pharmaceuticals Inc/ Choongwae Pharma Corp	Neu-2000	Spinal cord injury; Motor neurone disease; Cerebrovascular ischemia	Apoptosis inhibitor; Noncompetitive NMDA antagonist; Coagulation inhibitor	Antioxidant agent
379.	Discovery	NsGene A/S/Biogen Idec Inc	Neublastin	Neuropathic pain; Neurodegenerative disease; Neuropathy	Ret tyrosine kinase receptor stimulator	Neuroprotectant
380.	**Clinical	Celmed USA	Neural stem cell therapy	Parkinsons disease	Cell line	Antiparkinsonian
381.	Discovery	Harvard University/ Acorda Therapeutics Inc	Neuregulin-2	Heart disease; Neurological disease	ErbB2 tyrosine kinase receptor modulator; ErbB3 tyrosine kinase receptor modulator; ErbB4 tyrosine kinase receptor modulator; Neuregulin-2 ligand	Neuroprotectant; Cardioprotectant
382.	Discovery	University of Minnesota/MGI GP Inc	Neuroimmunophilin ligands (alopecia)	Diabetic neuropathy; Alzheimers disease; Multiple sclerosis; Neurodegenerative disease; Parkinsons disease; Alopecia; Cerebrovascular disease; Cerebrovascular ischemia; Neuropathy	Immunophilin modulator	Chemo-protectant; Neuroprotectant; Anti-parkinsonian; Dermatological agent
383.	*No development reported/ discontinued (Discovery)	Sanofi-Aventis	Neurolysin inhibitors	Neurological disease	Metalloprotease-3 inhibitor; Neuropeptide metabolism modulator; Neurolysin inhibitor	Neuroprotectant

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
384.	Discovery	Abbott Laboratories	Neuronal nAChR ligands	Alzheimers disease; Neurodegenerative disease; Pain; Nicotine dependence; Anxiety disorder; Schizophrenia; Major depressive disorder	Nicotinic ACh agonist; Nootropic agent	Anxiolytic; Antipsychotic; Analgesic
385.	Discovery	Acorda Therapeutics Inc	Neuronal stem cell therapy	Spinal cord injury; Parkinsons disease	Genetically engineered autologous cell therapy; Regeneration from stem cells	Antiparkinsonian
386.	*No development reported/ discontinued (Discovery)	Vertex Pharmaceuticals Inc/ Schering AG	Neurophilins (neurological disease)	Alzheimers disease; Multiple sclerosis; Parkinsons disease; Arthritis; Psoriasis; Autoimmune disease; Neurological disease; Diabetes mellitus	General pump inhibitors; P-glycoprotein inhibitor	Anti-parkinsonian; Immuno-suppressant
387.	Discovery	Renovis Inc	Neuroprotectants (nitron-based)	Cerebrovascular ischemia; Neurological disease; Injury	Antioxidants	Neuroprotectant
388.	**Discovery	Medipost Co Ltd	Neurostem	Central nervous system disease	Stem cell therapy	CNS modulator
389.	Discovery	Krenitsky Pharmaceuticals Inc	Neurotrophic factor mimetics	Alzheimers disease; Huntingtons chorea; Neurodegenerative disease; Cognitive disorder; Cerebrovascular ischemia	Neuronal growth factor receptor agonist	Neuroprotectant
390.	Discovery	BioVex Ltd	NeuroVEX	Spinal cord injury; Neurodegenerative disease; Parkinsons disease; Pain	Dopamine synthesis stimulant; Herpes virus based gene therapy; Dopamine modulator	Antiparkinsonian
391.	**Discovery	Resverlogix Corp	NexVas AD	Alzheimers disease	HDL cholesterol enhancer; Apolipoprotein gene stimulator; Amyloid protein deposition inhibitor	Nootropic agent
392.	**Discovery	Resverlogix Corp	NexVas PR	Atherosclerosis; Cerebrovascular ischemia	HDL cholesterol enhancer; Antiarteriosclerotic Apolipoprotein A1 agonist; Antihyper-cholesterolesterolemic agent	
393.	**Discovery	Prana Biotechnology Ltd	NG-1	Alzheimers disease	Chelating agent	Nootropic agent
394.	Discovery	Lay Line Genomics SpA	NGF therapy	Alzheimers disease	NGF agonist	Nootropic agent
395.	Phase 1	Life Science Research Israel/TorreyPines Therapeutics Inc	NGX-267	Alzheimers disease; Schizophrenia	Muscarinic M1 agonist; Beta amyloid antagonist	Nootropic agent

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
396.	Phase 2	Neurohealing Pharmaceuticals Inc	NH-02D	Cerebrovascular ischemia; Brain injury	Adrenoceptor agonist; CNS modulator	
397.	Discovery	Bayer AG/EnVivo Pharmaceuticals Inc	Nicotinic acetylcholine receptor agonist (cognitive enhancement/ Alzheimers disease)	Alzheimers disease; Schizophrenia	Nicotinic ACh agonist	Nootropic agent; Antipsychotic
398.	Discovery	Targacept Inc/Sanofi-Aventis	Nicotinic Ach agonists (Alzheimers disease); former TC-4959	Alzheimers disease	Nicotinic ACh agonist	Neuroprotectant
399.	**Discovery	Pfizer Inc	Nicotinic AChR agonists (schizophrenia)	Schizophrenia; Cognitive disorder	Nicotinic ACh agonist	Nootropic agent
400.	Discovery	Northwestern University	Nitric oxide synthase inhibitors	Cerebrovascular ischemia; Inflammation	NO synthesis inhibitor	Neuroprotectant
401.	**Discovery	Pfizer Inc	Nitric oxide synthase inhibitors	Pain; Parkinsons disease; Cerebrovascular ischemia	NO synthesis inhibitor	Neuroprotectant; Analgesic; Antiparkinsonian
402.	Discovery	University of Tennessee Memphis/ University of Pittsburgh	NMDA antagonists	Pneumocystis carinii infection; Central nervous system disease	NMDA receptor antagonist	Antiparasitic
403.	Phase 1	Pfizer Inc	NMDA/glycine antagonists	Cerebrovascular ischemia	NMDA/Glycine antagonist	Neuroprotectant
404.	Discovery	Hoffmann-La Roche AG	NMDA NR2B antagonists (intravenous)	Neurodegenerative disease; Central nervous system disease; Cerebrovascular ischemia	NMDA receptor antagonist	Neuroprotectant
405.	Discovery	University of Maryland/VistaGen Therapeutics Inc	NMDA receptor antagonists; former 4-Cl-kynurenine	Neurodegenerative disease; Epilepsy; Huntingtons chorea; Neuropathic pain; Parkinson disease; Schizophrenia	NMDA receptor antagonist	Neuroprotectant; Anticonvulsant agent
406.	Discovery	Merck Sharp & Dohme Research Laboratories	NMDA receptor antagonists (NR2B subtype-selective)	Neuropathic pain; Parkinsons disease; Cerebrovascular ischemia; Epilepsy	NMDA receptor epsilon 2 subunit inhibitor	Neuroprotectant; Analgesic; Anti-parkinsonian; Anticonvulsant agent
407.	**Phase 2	Neuromed Pharmaceuticals Inc	NMED-160	Pain	N-type calcium channel bloker	Analgesic
408.	**Phase 1	Neuren Pharmaceuticals Ltd	NNZ-2566 (intravenous, brain injury/stroke)	Neurological disease; Brain injury		Neuroprotectant
409.	Discovery	Yale University/Biogen IDEC Inc	Nogo receptor modulators	Spinal cord injury; Multiple sclerosis; Cerebrovascular ischemia; Brain injury; Parkinsons disease; Glaucoma	Neuronal growth factor receptor modulator; Nogo receptor modulator	Neuroprotectant; Antiglaucoma agent

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
410.	Discovery	Organix Inc/Harvard Medical School/ Massachusetts General Hospital	Nonamines	Parkinsons disease; Central nervous system disease; Cocaine addiction	Monoamine uptake inhibitor	Antiparkinsonian
411.	**Discovery	Bioprojet Pharma/ Berlin Free University	Non-imidazole H3 antagonists	Central nervous system disease	Histamine H3 antagonist	
412.	**Discovery	Corcept Therapeutics Inc/Argenta Discovery Ltd	Non-steroidal GR antagonists (psychiatric disorders)	Psychiatric disorder	Glucocorticoid antagonist	Antipsychotic
413.	**Discovery	Yissum Research Development Co of the Hebrew University of Jerusalem	Nootropic agent	Alzheimers disease; Neurodegenerative disease; Parkinsons disease; Creutzfeldt Jakob disease		Neuroprotectant; Antiparkinsonian
414.	*Phase 1 (Discovery)	Medinox Inc	NOX-700	Neurodegenerative disease; Insulin dependent diabetes; Non-insulin dependent diabetes	NO modulator	Antioxidant agent
415.	Discovery	Neuropharma SA	NP-0361	Alzheimers disease	Acetylcholinesterase inhibitor; Amyloid protein deposition inhibitor	Neuroprotectant
416.	Discovery	NPS Pharmaceuticals Inc	NPS-1407	Epilepsy; Pain; Neurodegenerative disease; Cerebrovascular ischemia; Major depressive disorder	NMDA receptor antagonist	Antidepressant; Anticonvulsant agent; Analgesic; Neuroprotectant
417.	**Discovery	NPS Pharmaceuticals Inc	NPS-P156	Central nervous system disease	NMDA receptor agonist; CNS modulator	
418.	**Discovery	Pfizer Inc	NR1a/2B subtype-selective NMDA antagonists	Pain; Parkinsons disease	NMDA receptor antagonist	Analgesic; Antiparkinsonian
419.	Phase 2	NeuroSearch AS	NS-1209	Epilepsy; Neuropathic pain; Pain; Cerebrovascular ischemia; Brain injury	Glutamate receptor-5 antagonist; AMPA receptor antagonist; Kainate receptor antagonist	Neuroprotectant; Analgesic; Anticonvulsant agent
420.	Discovery	Mayo Foundation	NT-69-L	Alzheimers disease; Pain; Parkinsons disease; Nicotine dependence; Schizophrenia	Neurotensin agonist	Antipsychotic; Analgesic; Antiparkinsonian
421.	Phase 2	Stem Cell Therapeutics Corp	NTx-265	Neurodegenerative disease; Cerebrovascular ischemia	Chorionic gonadotropin agonist; Erythropoietin agonist	Neuroprotectant
422.	Discovery	Nymox Pharmaceutical Corp	NXD-5150	Neurodegenerative disease	Unidentified	Neuroprotectant
423.	Discovery	Nymox Pharmaceutical Corp	NXD-9062	Alzheimers disease	Spheron conversion inhibitor	Neuroprotectant
424.	Phase 2	Janssen Pharmaceutica NV	Ocaperidone	Schizophrenia	Dopamine D2 antagonist; 5-HT 2a antagonist	Antipsychotic

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
425.	**Phase 3	GENOPIA Biomedical GmbH	ODS-II	Major depressive disorder		Antidepressant
426.	**Phase 1	Organon Laboratories Ltd	Org-26041	Pain; Psychiatric disorder	Glycine transporter-1 inhibitor	Psychomodulator
427.	**Phase 1	NV Organon	Org-50189	Neurological disease	Cannabinoid CB1 receptor antagonist	CNS modulator
428.	**Phase 2	Synthetic Blood International Inc	Oxycyte	Anemia; Blood transfusion; Cerebrovascular ischemia; Brain injury	Oxygen carrier	Blood system agent
429.	Discovery	National Institutes of Health	p53 inhibitors (neurodegenerative disease)	Neurodegenerative disease; Toxicity	Protection of dopaminergic neurons; Suppression of Bax production	Neuroprotectant; Apoptosis inhibitor
430.	Phase 3	Johnson & Johnson	Paliperidone	Schizophrenia	5-HT antagonist	Antipsychotic
431.	Phase 2	Sanofi-Aventis	Paliroden; former SR-57667	Alzheimers disease; Parkinsons disease	Growth factor stimulator; Anti-apoptotic	Neuroprotectant; Nootropic agent; Antiparkinsonian
432.	Phase 3	Lifegroup SpA	Palmidrol	Inflammation; Autoimmune disease	5-HT release inhibitor; Cannabinoid agonist	Anti-inflammatory
433.	Discovery	Panacea Pharmaceuticals Inc	PAN-811	Alzheimers disease; Ischemia; Cancer	Ribonucleotide reductase inhibitor; Chelating agent; Free radical scavenger; Bcl-2 gene stimulator	Neuroprotectant; Antioxidant agent
434.	Discovery	Aurigene Discovery Technologies Ltd	Pan-caspase inhibitors	Myocardial infarction; Neurodegenerative disease; Cerebrovascular ischemia	Apoptosis inhibitor; Caspase inhibitor	Cardioprotectant; Neuroprotectant
435.	Phase 3	Solvay SA	Pardoprinox; former SLV-308	Anxiety disorder; Parkinsons disease; Major depressive disorder	Dopamine D2 agonist; Adrenoceptor agonist; 5-HT 1a agonist	Neuroprotectant; Antidepressant; Anxiolytic; Antiparkinsonian
436.	Discovery	Panacea Pharmaceuticals Inc	Parkinsons therapeutic peptides (PAN-408, PAN-527)	Parkinsons disease	Synuclein alpha inhibitor	Antiparkinsonian
437.	**Discovery	University of Manchester	Parkinsons therapy	Parkinsons disease	Dopamine receptor agonist; 5-HAT 2c antagonist	Antiparkinsonian
438.	Discovery	Astellas Pharma Inc	PARP-1 inhibitors	Brain ischemia; Parkinsons disease	PARP inhibitor	Neuroprotectant
439.	Discovery	University of Florence/GlaxoSmithKline	PARP-1 inhibitors	Cerebrovascular ischemia	PARP inhibitor	Neuroprotectant
440.	**Discovery	Astellas Pharma Inc	PARP-2 inhibitors	Neurodegenerative disease; Parkinsons disease	PARP inhibitor	Neuroprotectant
441.	Discovery	Kyorin Pharmaceutical Co Ltd	PARP inhibitors	Cerebrovascular ischemia	PARP inhibitor	Neuroprotectant; Cerebro-protectant
442.	Discovery	Octamer Inc/Crimson Pharmaceutical	PARP inhibitors	HIV infection; Inflammation; Cerebrovascular ischemia; Cancer; Septic shock	PARP inhibitor	Anticancer; Neuroprotectant; Anti-inflammatory; Antiviral

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
443.	**Phase 1	Wyeth	PAZ-417	Alzheimers disease	PAI inhibitor; Fibrinolysis stimulator	Nootropic agent
444.	*Phase 2 (Phase 1)	Prana Biotechnology Ltd	PBT-2	Alzheimers disease	Chelating agent; Tau protein modulator	Nootropic agent
445.	Discovery	Parke-Davis & Co	PD-148903	Parkinsons disease	Dopamine D1 agonist; Dopamine D2 agonist	Antiparkinsonian
446.	**Discovery	Memory Pharmaceuticals Corp/ Amgen Inc	PDE 10 inhibitors (CNS disorders)	Psychiatric disorder; Neurological disease	PDE 10 inhibitor	Antipsychotic
447.	Discovery	Eli Lilly & Co	PDE3 inhibitors; former PDE modulators	Metabolic disorder; Neurological disease	PDE 3 inhibitor; metabolic modulator	Neuroprotectant; Anti-inflammatory
448.	Discovery	Memory Pharmaceuticals Corp/ Roche Holding AG	PDE 4 inhibitors	Alzheimers disease; Parkinsons disease; Schizophrenia; Major depressive disorder; Cognitive disorder	PDE 4 inhibitor	Nootropic agent; Antidepressant; Antipsychotic; Antiparkinsonian
449.	**Phase 1	University of Auckland/Cornell University	PD gene therapy	Parkinson disease	Adenovirus based gene therapy	Antiparkinsonian
450.	**Discovery	CoDa Therapeutics (NZ) Ltd	Peptagon	Reperfusion injury; Inflammation; Ischemia; Cerebro-vascular ischemia		Cardiovascular agent; Anti-inflammatory
451.	**Discovery	Vasogen Inc	Personalized immunotherapy; Vasogen	Reperfusion injury; Chronic lymphocytic leukemia; Peripheral vascular disease; Psoriasis; Rheumatoid arthritis; Cardiac failure; Graft versus host disease; Ischemia Neurological disease	Cytokine modulator	Anticancer; Blood system agent; Immuno-modulator; Cardioprotectant; Vasoprotectant
452.	*No development reported (Phase 2)	Wyeth Research	Perzinfotel	Neurophatic pain; Cerebrovascular ischemia	NMDA receptor antagonist	Neuroprotectant; Analgesic
453.	*No development reported (Discovery)	Alexion Pharmaceuticals Inc/ The Procter & Gamble Co	Pexelizumab	Myocardial infarction; Cerebrovascular ischemia; Angina	Complement cascade inhibitor	Cardioprotectant; Vasoprotectant
454.	**Phase 2	TransTech Pharma Inc/Pfizer Inc	PF-4494700	Diabetic nephropathy; Alzheimers disease	Amyloid protein deposition inhibitor	
455.	**Clinical	Pfizer Inc	PH-399733	Schizophrenia	Nicotinic Ach receptor agonist	Antipsychotic
456.	**Discovery	Sanguine Corp	PHER-O2	Fungal infection; Bacterial infection; Cardiac failure; Erythrocyte disorder; Cerebrovascular ischemia; Cancer; Injury	Oxygen carrier	Anticancer; Antibacterial; Fungicide; Cardiovascular agent
457.	Discovery	University of Nottingham/H Lundbeck A/S/Royal Danish School of Pharmacy	Philanthotoxins	Neurodegenerative disease; Cognitive disorder	Nicotinic ACh antagonist; AMPA receptor antagonist	Nootropic agent

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
458.	Discovery	AGY Therapeutics Inc	Phosphatase inhibitors (Alzheimers)	Alzheimers disease; Cognitive disorder	Protein tyrosine phosphatase modulator; NMDA receptor modulator	Nootropic agent
459.	*Phase 3 (Phase 2)	ACADIA Pharmaceuticals Inc	Pimavanserin tartrate; former ACP-103	Psychosis; Schizophrenia; Psychomotor disorder; Insomnia	5-HT 2a inverse agonist	Antipsychotic
460.	Discovery	PharmaKodex Ltd	PKX-700	Neurological disease	CNS modulator	
461.	Discovery	PharmaKodex Ltd	PKX-963	Neurological disease	CNS modulator	
462.	**Discovery	Thromb-X NV/ Geymonat SpA	Placental growth factor (ischemic stroke)	Cerebrovascular ischemia	Unspecified growth factor agonist; VEGF-1 receptor agonist	Angiogenesis stimulator
463.	Discovery	Proneuron Biotechnologies Inc	PN-277	Spinal cord injury; Neurodegenerative disease; Glaucoma; Cerebrovascular ischemia	No information available	Neuroprotectant; Immuno-modulator; Antiglaucoma agent
464.	Discovery	Wellstat Therapeutics Corp	PN-401	Leukopenia, drug induced; Neurodegenerative disease	Uracil metabolism modulator	Chemo-protectant; Neuroprotectant
465.	Phase 2	Pfizer Inc	PNU-170413	Psychosis; Schizophrenia	Dopamine D3 antagonist	Antipsychotic
466.	Phase 1	Pfizer Inc	PNU-177864	Schizophrenia	Dopamine D3 antagonist	Antipsychotic
467.	Clinical	Polifarma SpA	POL-255	Diabetic neuropathy; Neurodegenerative disease; Schizophrenia	Dopamine agonist	Antipsychotic
468.	Discovery	University of Kuopio/ Finncover Oy	POP inhibitor (Alzheimers)	Alzheimers disease	Prolylendopeptidase inhibitor	Neuroprotectant
469.	*Phase 1 (Phase 2)	TorreyPines Therapeutics Inc/NIH	Posiphen; former Phenserine	Alzheimers disease	Beta amyloid synthesis inhibitor; Beta-secretase inhibitor	Anti-amyloidogenic; Nootropic agent
470.	Discovery	Wyeth Research	Potassium channel modulators (epilepsy)	Epilepsy	Potassium channel modulator	Anticonvulsant agent
471.	Discovery	Bristol-Myers Squibb Pharmaceutical Research Institute	Potassium (maxi-K) channel openers	Functional bowel disorder; Erectile dysfunction; Urinary incontinence; Cerebrovascular ischemia; Brain injury	Potassium channel activator	Renal system agent
472.	**Discovery	Trigen Holdings AG	PR-15	Coronary thrombosis; Atherosclerosis; Cerebrovascular ischemia	Platelet aggregation inhibitor	Coagulation inhibitor
473.	Discovery	Samaritan Pharmaceuticals Inc	Procaine hydrochloride	Alzheimers disease; HIV infection; Retinitis pigmentosa Cancer; Cushings disease	Corticosteroid antagonist; HIV uptake inhibitor	Anticancer; Immuno-modulator; Nootropic agent

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
474.	Discovery	Vyrex Corp	Propofol phosphate	Anesthesia; Neurological disease	A water-soluble prodrug of the anesthetic propofol that has demonstrated antioxidant and anti-inflammatory properties	Anesthetic; Anxiolytic; Hypnotic; Anti-inflammatory; Antioxidant agent
475.	Discovery	Advanced Life Sciences Inc	Protein aggregation inhibitors	Alzheimers disease; Non-insulin dependent diabetes	Amyloid protein deposition inhibitor	Nootropic agent
476.	**Phase 2	Hebrew University of Jerusalem/Pharmos Corp	PRS-211375	Inflammation; Pain; Neurodegenerative disease; Autoimmune disease	Cannabinoid CB2 receptor agonist	Immuno-modulator; Analgesic; Anti-inflammatory
477.	*Phase 2	EPIX Pharmaceuticals Inc	PRX-03140	Alzheimers disease; Cognitive disorder	5-HT 4 agonist; Acetylcholine release stimulator; Brain derived neurotrophic factor ligand	Nootropic agent
478.	**Phase 1	EPIX Pharmaceuticals Inc	PRX-07034	Obesity; Cognitive disorder	5-HT 6 antagonist	Appetite suppressant; Nootropic agent
479.	**Discovery	Proximagen Neuroscience plc	PRX-1	Parkinsons disease	Dopamine modulator	Nootropic agent; Antiparkinsonian
480.	**Discovery	Pharmacopeia Drug Discovery Inc	PS-246518	Parkinsons disease	Adenosine A2 receptor antagonist	Neuroprotectant; Antiparkinsonian
481.	Phase 1	Phytopharm plc	PYM-50018	Motor neurone disease; Neuromuscular disease; Cardiac failure	Adrenergic modulator	Neuroprotectant; Cardioprotectant
482.	Phase 2	Phytopharm plc	PYM-50028	Alzheimers disease; Parkinsons disease	Dopamine modulator; Neuronal growth factor receptor agonist; Muscarinic M1 receptor modulator	Neuroprotectant; Nootropic agent; Antiparkinsonian
483.	Phase 2	Quigley Pharma Inc	QR-333	Diabetic neuropathy	Aldose reductase inhibitor	Neuroprotectant; Antioxidant agent
484.	**Phase 1	Roche Holding AG	R-1204	Anxiety disorder; Major depressive disorder	Unspecified GPCR modulator	Antidepressant; Anxiolytic
485.	*Phase 1 (Discovery)	Roche Holding AG	R-1450	Alzheimers disease	A monoclonal antibody with an undisclosed mechanism of action	Neuroprotectant
486.	**Discovery	Roche Holding AG	R-1497	Parkinsons disease; Major depressive disorder	Unspecified GPCR modulator	Neuroprotectant
487.	Phase 1	Roche Holding AG	R-1577	Alzheimers disease	Unclassified enzyme inhibitor	Neuroprotectant
488.	**Discovery	Roche Holding AG	R-1603	Alzheimers disease	Unspecified GPCR modulator	Neuroprotectant
489.	Phase 2	Newron Pharmaceuticals SpA	Ralfinamide	Neuropathic Pain; Pain	Sodium channel blocker	Analgesic

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
490.	Discovery	Biotica Technology Ltd	Rapamycin analogs (neurodegenerative disease)	Neurodegenerative disease	mTOR inhibitor	Neuroprotectant
491.	**Phase 2	CardioVascular BioTherapeutics Inc	Recombinant FGF-1 (injectable, vascular disease)	Pain; Osteoporosis; Peripheral vascular disease; Wound healing; Cerebrovascular ischemia; Coronary artery disease	FGF-1 ligand; Angiogenesis stimulator	Analgesic
492.	**Discovery	Osaka University/ Kringle Pharma Inc/ Tripep AB	Recombinant HGF	Fibrosis; Wound healing; Neurological disease	Fibrinolysis inhibitor; Hepatocyte growth factor agonist	
493.	*Phase 2 (Phase 1)	Thromb-X NV	Recombinant human microplasmin (injected)	Peripheral arterial occlusive disease; Ocular disease; Cerebrovascular ischemia	Fibrinolytic stimulator; Plasmin stimulator	Neuroprotectant
494.	Discovery	Galileo Pharmaceuticals Inc	Redox metabolic modulators (stroke)	Cerebrovascular ischemia	Antioxidant agent	Neuroprotectant
495.	**Discovery	ReNeuron (UK) Ltd	ReN-001	Cerebrovascular ischemia	Stem cell therapy	Neuroprotectant
496.	**Discovery	ReNeuron (UK) Ltd	ReN-004	Alzheimers disease; Parkinsons disease	Stem cell therapy	Neuroprotectant; Nootropic agent; Antiparkinsonian
497.	Discovery	ReNeuron (UK) Ltd	ReN-005; former Neural stem cell therapy	Huntingtons chorea	Stem cell therapy	Neuroprotectant
498.	*Discontinued (Discovery)	University of Bristol/ ReNeuron (UK) Ltd	ReN-1820	Inflammation; Pain; Neurodegenerative disease; Cystitis	NGF antagonist	Nootropic agent; Anti-inflammatory; Analgesic; Muscle relaxant
499.	*Phase 3 (Phase 2)	Valeant Pharmaceuticals	Retigabine; former GKE-841	Neuralgia; Epilepsy	GABA A agonist; Potassium channel activator	Anticonvulsant agent; Vasodilatory agent
500.	Phase 2	RepliGen Corp	RG-1068	Anxiety disorder; Pancreatitis; Schizophrenia; Autism; Obsessive-compulsive disorder	Secretin agonist	Imaging agent
501.	**Phase 3	Bayer AG/Ortho-McNeil Pharmaceutical Inc	Rivaroxaban	Thromboembolism; Cardiovascular disease; Heart disease; Cerebrovascular ischemia	Factor Xa antagonist; Coagulation inhibitor	Coagulation inhibitor
502.	Discovery	Sirna Therapeutics Inc/ Targeted Genetics Corp	RNAi therapy (Huntingtons disease)	Huntingtons chorea	Gene inhibitor; siRNA agent	Neuroprotectant
503.	*Phase 3 (Phase 2)	GlaxoSmithKline plc	Rosiglitazone XR	Alzheimers disease; Rheumatoid arthritis	PPAR gamma agonist	Neuroprotectant; Anti-inflammatory
504.	**Phase 2	Aderis Pharmaceuticals Inc	Rotigotine (nasal spray)	Parkinsons disease	Dopamine D2 agonist	Antiparkinsonian

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
505.	Discovery	Roche Bioscience	RS-100642	Neurodegenerative disease; Cerebrovascular ischemia	Sodium channel blocker	Neuroprotectant
506.	**Discovery	Reata Pharmaceuticals Inc	RTA-404	Alzheimers disease; Multiple sclerosis; Parkinsons disease	Cytokine antagonist	CNS modulator
507.	Phase 2	Shionogi & Co Ltd/ GlaxoSmithKline plc	S-0139	Cerebrovascular ischemia	Endothelin ET-A antagonist	Antihypertensive
508.	*No development reported (Discovery)	Servier	S-14297	Psychosis; Schizophrenia	Dopamine D3 antagonist	Antipsychotic
509.	Phase 2	Servier	S-18986	Neurodegenerative disease; Cognitive disorder; Cerebrovascular ischemia	Glutamate receptor antagonist; AMPA receptor modulator; Brain derived neurotrophic factor modulator	Neuroprotectant; Nootropic agent
510.	*No development reported (Discovery)	Servier	S-33113-1	Neurodegenerative disease; Cerebrovascular ischemia	Inhibition of lipid peroxidation	Neuroprotectant; Antioxidant agent
511.	*No development reported (Discovery)	Servier	S-33138	Psychosis; Schizophrenia	Dopamine D3 antagonist	Antipsychotic
512.	Phase 2	Minster Research Ltd	Sabcomeline	Schizophrenia; Alzheimers disease; Non-insulin dependent diabetes; Dementia	Muscarinic M1 agonist	Nootropic agent; Antipsychotic
513.	Phase 3	Newron Pharmaceuticals SpA/ Merck Serono SA	Safinamide	Restless legs syndrome; Epilepsy; Pain; Parkinsons disease	Calcium channel modulator; Dopamine uptake inhibitor; MAO B inhibitor; Sodium channel blocker	Neuroprotectant; Anti-parkinsonian; Anticonvulsant agent; Analgesic; Nootropic agent
514.	*Phase 1 (Discovery)	Wyeth	SAM-315; former 5-HT6 antagonists	Alzheimers disease; Neurological disease	5-HT 6 antagonist	Nootropic agent
515.	**Phase 1	Wyeth	SAM-531	Alzheimers disease	Undisclosed	Nootropic agent
516.	Discovery	Sanofi-Aventis	SAR-502250	Alzheimers disease; Non-insulin dependent diabetes	Tau kinase inhibitor; Glycogen synthase kinase-3 beta inhibitor	Neuroprotectant; Hypoglycemic agent
517.	*Discontinued (Phase 2)	Merck KGaA	Sarizotan	Parkinsons disease; Psychosis; Schizophrenia; Tardive dyskinesia	Dopamine D3 antagonist; Dopamine D4 antagonist; 5-HT 1a agonist	Antipsychotic; Antiparkinsonian
518.	Phase 1	Shionogi-GlaxoSmithKline Pharmaceuticals LLC	SB-234551	Hypertension; Cerebrovascular ischemia; Renal failure	Endothelin antagonist; Endothelin ET-A antagonist	Antihypertensive
519.	*Discovery (Dis-continued)	GlaxoSmithKline plc	SB-277011	Schizophrenia; Drug dependence	Dopamine D3 antagonist	Antipsychotic

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
520.	Phase 2	Schering-Plough Corp	SCH-420814; former Adenosine A2a antagonists	Parkinsons disease	Adenosine A2a antagonist	Antiparkinsonian
521.	Discovery	Scios Inc	SCIO-323	Myelodysplastic syndrome; Multiple myeloma; Rheumatoid arthritis; Cerebrovascular ischemia; Diabetes mellitus	p38 MAP kinase inhibitor; TNF alpha synthesis inhibitor	Neuroprotectant; Anti-inflammatory
522.	Phase 2	Scios Inc	SCIO-469	Multiple myeloma; Pain; Rheumatoid arthritis	Phosphotransferase inhibitor; p38 MAP kinase inhibitor; Protein kinase inhibitor; TNF alpha synthesis inhibitor; TNF cytokine receptor family antagonist	Anticancer; Analgesic; Anti-inflammatory
523.	Discovery	Taisho Pharmaceutical Co Ltd	SEA-0400	Cerebrovascular ischemia	Na ⁺ Ca ²⁺ ion exchange inhibitor	Neuroprotectant
524.	**Discovery	Faust Pharmaceuticals	Selective mGluR agonists (Parkinsons disease/anxiety)	Anxiety disorder; Parkinsons disease	Metabotropic glutamate receptor agonist	Anxiolytic; Antiparkinsonian
525.	**Phase 2	UCB SA	Seletracetam	Epilepsy; Parkinsons disease	Synaptic vesicle glycoprotein 2A modulator	Anti-parkinsonian; Anticonvulsant agent
526.	Phase 2	Russian Academy of Sciences	SEMAX	Alzheimers disease; Neurodegenerative disease; Head injury; Cerebrovascular ischemia	ACTH agonist	Neuroprotectant; Vasoprotectant
527.	*No development reported (Discovery)	Guilford Pharmaceuticals Inc	Serine racemase inhibitors	Neurodegenerative disease	Unspecified enzyme inhibitor; Glutamate release inhibitor	Neuroprotectant
528.	Discovery	Eisai Co Ltd	Serofendic acids	Neurological disease	Serofendic acids, isolated from lipophilic extracts of fetal calf serum, as potential neuroprotectants in neurological disease	Neuroprotectant
529.	**Discovery	BioFocus DPI	Serotonin antagonists	Anorexia nervosa; Schizophrenia; Cardiovascular disease; Insomnia	5-HT 2a antagonist	Antipsychotic
530.	Phase 2	Eli Lilly & Co/Saegis Pharmaceuticals Inc	SGS-518	Schizophrenia; Cognitive disorder	5-HT 6 antagonist	Nootropic agent
531.	Phase 2	Novartis AG/Saegis Pharmaceuticals Inc	SGS-742	Alzheimers disease; Attention deficit hyperactivity disorder; Cognitive disorder	GABA B antagonist	Nootropic agent
532.	*No development reported (Discovery)	Schering-Plough Corp	Siclofen	Neurodegenerative disease	GABA B agonist	Neuroprotectant

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
533.	*No development reported (Discovery)	GlaxoSmithKline plc	SKF-82958	Parkinsons disease	Dopamine D1 agonist	Antiparkinsonian
534.	**Discovery	SK Chemicals Life Science	SK-PC-B70M	Alzheimers disease		Neuroprotectant; Nootropic agent
535.	Phase 1	Solvay SA	SLV-314	Psychosis; Schizophrenia	5-HT 1a receptor modulator; Dopamine D2 antagonist; 5-HT uptake inhibitor	Antipsychotic
536.	**Discovery	Oxford Biomedica plc	SOD1-targeting RNAi therapy (ALS)	Motor neurone disease	Superoxide dismutase inhibitor; Unspecified gene inhibitor	
537.	Discovery	Merck & Co Inc	Somatostatin receptor 2 agonists	Alzheimers disease; Rheumatoid arthritis; Acromegaly; Diabetic retinopathy; Cancer; Diabetes mellitus	Somatostatin agonist; Glucagon release inhibitor	Anticancer
538.	Discovery	Georgetown University/ Samaritan Pharmaceuticals Inc	SP-08	Alzheimers disease	Amyloid protein deposition inhibitor; Beta amyloid antagonist	Neuroprotectant
539.	Discovery	Georgetown University/Samaritan Pharmaceuticals Inc	SP-233	Spinal cord injury; Alzheimers disease; Parkinsons disease; Dementia	Amyloid protein deposition inhibitor; Beta amyloid antagonist	Neuroprotectant; Nootropic agent; Antiparkinsonian
540.	Discovery	Sanochemia Pharmazeutika AG	SPH-1371	Alzheimers disease; Dementia	Cholinesterase inhibitor	Neuroprotectant
541.	*No development reported (Discovery)	Biofrontera Bioscience GmbH	Sphingomyelinase inhibitors	Neurodegenerative disease	Sphingomyelinase inhibitor	Neuroprotectant
542.	Discovery	Sagami Chemical Research Center/ Taisho Pharmaceutical Co Ltd	Sphingomyelinase inhibitors	Neurodegenerative disease; Cerebrovascular ischemia	Sphingomyelinase inhibitor	Neuroprotectant; Nootropic agent
543.	Discovery	Satori Pharmaceuticals Inc	SPI-014	Alzheimers disease	Amyloid protein deposition inhibitor	
544.	**Phase 1	Wyeth	SRA-444	Alzheimers disease	5-HT 1a antagonist	Nootropic agent
545.	Discovery	SIRENADE Pharmaceuticals AG	SRN-003-556	Alzheimers disease	Tau aggregation inhibitor; Tau deposition inhibitor; Extracellular signal related kinase-2 inhibitor	Neuroprotectant; Nootropic agent
546.	*Discovery (Phase 1)	Sanofi-Aventis	SSR-103800; former GlyT-1 inhibitor	Schizophrenia	Glycine transporter-1 inhibitor	Antipsychotic; Anxiolytic
547.	Phase 1	Sanofi-Aventis	SSR-180575	Congestive heart failure; Arthritis; Neurodegenerative disease	Benzodiazepine agonist	Neuroprotectant; Nootropic agent; Cardiac agent
548.	*Phase 1 (Discovery)	Sanofi-Aventis	SSR-180711	Alzheimers disease; Neurodegenerative disease; Schizophrenia	Nicotinic ACh receptor alpha 7 subunit stimulator	Neuroprotectant; Nootropic agent; Antipsychotic

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
549.	Discovery	BresaGen Ltd	Stem cell therapy	Spinal cord injury; Parkinsons disease; Thalassemia; Cerebrovascular ischemia	Stem cell therapy	Neuroprotectant; Antiparkinsonian
550.	**Discovery	Neuralstem Inc	Stem cell therapy (ALS, spinal cord injury)	Spinal cord injury; Motor neuron disease; Paraplegia; Diabetic complication	Stem cell therapy	Neuroprotectant
551.	**Discovery	Samaritan Pharmaceuticals Inc	Stem cell therapy drugs (non-embryonic, Alzheimers disease/ neurodegeneration)	Alzheimers disease; Neurodegenerative disease	Neuronal stem cell differentiation therapy drugs, including the naturally occurring compounds SP-sc4 and SP-sc7, to induce stem cell differentiation	Nootropic agent
552.	*No development reported (Discovery)	Tanabe Seiyaku Co Ltd/Cell Therapeutics Scandinavia AB/Jichi Medical School	Stem cell therapy (Parkinsons)	Parkinsons disease	Repairing damaged and diseased tissues with healthy new cells	Neuroprotectant; Antiparkinsonian
553.	Discovery	Geron Corp	Stem cell therapy (spinal cord injury)	Spinal cord injury; Parkinsons disease; Cerebrovascular ischemia	Midkine ligand; Activin receptor agonist; VEGF receptor agonist; TGF beta agonist; Hepatocyte growth factor agonist	Neuroprotectant; Antiparkinsonian
554.	Discovery	University of Miami	Stilbazulenyl nitron	Cerebrovascular ischemia; Brain injury; Ischemic heart disease	Azulenyl nitron-based antioxidant	Neuroprotectant; Antioxidant agent; Cardioprotectant
555.	Phase 1	Daiichi Suntory Biomedical Research Co Ltd/Taisho Pharmaceutical Co Ltd	SUN-N8075	Cerebral infarction	Na ⁺ Ca ²⁺ ion exchange inhibitor; T-type calcium channel blocker; Sodium channel blocker	Neuroprotectant; Vasodilatory agent; Antioxidant agent
556.	Phase 1	PoliChem SA/ SIRENADE Pharmaceuticals AG	Sustained release dihydroergocryptine	Alzheimers disease; Migraine; Parkinsons disease	Dopamine agonist	Neuroprotectant
557.	**Discovery	Aida Pharmaceuticals Inc	SY-02	Cerebrovascular ischemia	Coagulation inhibitor	Cerebro-protectant
558.	**Phase 1	Roche Holding AG/ Synosia Therapeutics	SYN-114	Cognitive disorder	5-HT 6 antagonist	Nootropic agent
559.	**Phase 1	Roche Holding AG/ Synosia Therapeutics	SYN-115	Parkinsons disease	Adenosine A2a receptor antagonist	Antiparkinsonian
560.	**Phase 1	Roche Holding AG/ Synosia Therapeutics	SYN-116	Pain	Prostacyclin antagonist; IP prostanoid antagonist	Analgesic
561.	**Phase 1	Roche Holding AG/ Synosia Therapeutics	SYN-117	Parkinsons disease; Drug dependence	Dopamine beta hydroxylase inhibitor	Antiparkinsonian
562.	**Discovery	Roche Holding AG/ Synosia Therapeutics	SYN-119	Drug dependence	Metabotropic glutamate receptor 1 agonist; Glutamate receptor-1 agonist	
563.	Phase 2	Taro Pharmaceutical Industries Ltd	T-2000	Epilepsy; Tremor; Cerebrovascular ischemia	Non-sedating barbiturate	Anticonvulsant agent

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
564.	Discovery	Taro Pharmaceutical Industries Ltd	T-2001	Cerebrovascular ischemia	Neuroprotective barbiturate	Neuroprotectant
565.	Phase 2	Toyama Chemical Co Ltd	T-588	Glaucoma; Alzheimers disease; Motor neurone disease; Cognitive disorder; Cerebral hypoxia; Dementia	Protein kinase stimulator; Acetylcholine release stimulator	Neuroprotectant; Antiglaucoma agent
566.	Phase 1	Toyama Chemical Co Ltd	T-817MA; former benzothioephene derivatives (Alzheimers disease)	Alzheimers disease	Benzothioephene derivatives	Neuroprotectant; Nootropic agent
567.	Phase 2	Fujisawa Pharmaceutical Co Ltd	Tacrolimus	Transplant rejection; Cerebrovascular ischemia; Lupus nephritis	IL synthesis inhibitor; IL-2 antagonist; Calcineurin inhibitor; T-lymphocyte inhibitor	Neuroprotectant; Immuno-suppressant
568.	**Discovery	Berlex Biosciences	TAFI inhibitors	Thrombosis; Coronary thrombosis; Myocardial infarction; Cerebrovascular ischemia	Thrombin-active fibrinolysis inhibitor; Fibrinolysis stimulator; Plasmin modulator	
569.	Phase 2	Eli Lilly & Co/Teva Pharmaceutical Industries Ltd	Talampanel	Motor neurone disease; Epilepsy; Multiple sclerosis; Parkinsons disease; Cerebrovascular ischemia; Seizure, epilepsy & convulsion; Brain tumor; Brain injury	AMPA receptor agonist	Neuroprotectant; Anti-parkinsonian; Anticonvulsant agent
570.	Phase 2	GlaxoSmithKline plc	Talnetant	Chronic obstructive pulmonary disease; Urinary incontinence; Irritable bowel syndrome; Pain; Schizophrenia; Asthma; Cough	NK3 antagonist	Antitussive; Antipsychotic; Analgesic
571.	**Phase 3	Loma Linda University Medical Center/ Myriad Genetics Inc	Tarenflurbil	Alzheimers disease; Prostate tumor; Colon tumor	Beta amyloid synthesis inhibitor; Gamma-secretase modulator	Anticancer; Neuroprotectant
572.	**Discovery	Thromb-X NV	TB-402	Heart arrhythmia; Deep vein thrombosis; Cerebrovascular ischemia	Factor VIII antagonist; Coagulation inhibitor	
573.	Discovery	R J Reynolds Tobacco Co	TC-2429; former RJR-2429	Alzheimers disease; Parkinsons disease; Dementia	Nicotinic ACh agonist	Nootropic agent; Antiparkinsonian
574.	**Discovery	Johns Hopkins University/Erismos Pharmaceuticals LLC	Terameprocol	Glioma; Cervical dysplasia; Alzheimers disease; HIV infection Psoriasis; Rheumatoid arthritis; Head and neck tumor; Solid tumor	Survivin protein inhibitor; Transcription factor inhibitor	Anticancer

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
575.	Phase 2	NeuroSearch A/S	Tesofensine; former NS-2330	Alzheimers disease; Parkinsons disease; Obesity; Non-insulin dependent diabetes	Neurotransmitter modulator; Dopamine agonist; Dopamine uptake inhibitor; Monoamine uptake inhibitor; Adrenoceptor agonist; ACh agonist	Antiparkinsonian
576.	*Phase 2 (Phase 1)	Eli Lilly & Co/ TorreyPines Therapeutics Inc	Tezampanel; former LY-293558	Epilepsy; Pain; Cerebral infarction; Cerebrovascular ischemia; Migraine	AMPA receptor antagonist; Kainate receptor antagonist	Neuroprotectant; Analgesic; Anticonvulsant agent
577.	**Discovery	Kaleidos Pharma Inc	TGF-alpha	HIV infection; Parkinsons disease	TGF alpha ligand	Antiparkinsonian; Antiviral
578.	Discovery	Thuris Corp	Thurinex	Alzheimers disease	Amyloid protein deposition inhibitor	Nootropic agent
579.	Discovery	Lonza Group AG	TK-14	Neurodegenerative disease		Neuroprotectant
580.	**Discovery	The Open University/ EUSA Pharma Ltd	TKP-1001	Alzheimers disease	Beta amyloid modulator	Neuroprotectant; Nootropic agent
581.	Discovery	Digital Gene Technologies Inc	TOGA technology	Alzheimers disease; Inflammatory bowel disease; Neoplasm; Parkinsons disease; Atherosclerosis; Gastrointestinal inflammation	Transcriptome analysis	Anti-arteriosclerotic; Antiparkinsonian
582.	*No development reported (Phase 1)	Telios Pharmaceuticals Inc	TP-9201	Angina; Restenosis; Thromboembolism; Cerebrovascular ischemia	Platelet aggregation inhibitor; GP IIb/IIIa antagonist	Vasoprotectant; Coagulation inhibitor
583.	**Clinical	Merck & Co Inc	TPA-023	Anxiety disorder	GABA A receptor agonist	Anxiolytic
584.	Phase 3	Neurochem Inc	Tramiprosate; former NC-531	Alzheimers disease; Cerebrovascular disease; Cerebrovascular ischemia	Amyloid protein deposition inhibitor	Neuroprotectant; Vasoprotectant; Nootropic agent
585.	Phase 2	Pfizer Inc	Traxoprodil	Neuropathic pain; Pain; Migraine; Neurodegenerative disease; Parkinsons disease; Head injury; Cerebrovascular ischemia; Tinnitus	NMDA receptor antagonist	Neuroprotectant; Analgesic; Antiparkinsonian
586.	Discovery	Pharmos Corp	Tricyclic dextrocannabinoids	Neuropathic pain; Inflammation; Inflammatory bowel disease; Multiple sclerosis; Neurodegenerative disease; Brain injury; Parkinsons disease; Rheumatoid arthritis; Autoimmune disease; Cerebrovascular ischemia; Nervous system inflammation	Cannabinoid agonist	Neuroprotectant; Analgesic; Immuno-modulator; Non-steroidal anti-inflammatory; Antiparkinsonian

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
587.	Phase 1	Taisho Pharmaceutical Co Ltd	TS-011	Cerebral infarction	Arachidonic acid metabolism inhibitor	Neuroprotectant; Anti-inflammatory
588.	**Discovery	TransTech Pharma Inc/Pfizer Inc	TTP-4000	Diabetic nephropathy; Alzheimers disease	Amyloid protein deposition inhibitor	Renal system agent
589.	Discovery	Universidad Complutense de Madrid	UCM-3100	Psychiatric disorder; Neurological disease	5-HT 7 receptor modulator	
590.	Phase 2	University of California San Diego/ Repligen Corp	Uridine (oral)	Renal disease; Neurodegenerative disease; Genetic disorder; Bipolar disorder; Neurological disease; Major depressive disorder	Uracil metabolism modulator	Neuroprotectant
591.	Phase 2	Vernalis plc	V-10153	Myocardial infarction; Thromboembolism; Cerebrovascular ischemia	Plasmin modulator; Fibrinolysis stimulator	Fibrinolytic agent
592.	**Phase 1	Merck & Co Inc	V-950	Alzheimers disease	Therapeutic vaccine; Amyloid protein deposition inhibitor	Immuno-modulator
593.	Phase 2	Wyeth	Vabicaserin; former SCA-136	Schizophrenia; Major depressive disorder	5-HT 2c agonist; 5-HT 2b antagonist	Antidepressant; Antipsychotic
594.	*Discontinued (Phase 2)	Human Genome Sciences Inc	VEGF-2 gene therapy (STILETTO, cardiovascular disease)	Vascular disease; Coronary artery disease; Ischemia; Diabetic neuropathy	Non-viral vector based gene therapy; Plasmid based gene therapy; VEGF agonist; Angiogenesis stimulator	Neuroprotectant; Cardioprotectant
595.	**Discovery	Oxford Biomedica plc	VEGF-targeting gene therapy (ALS, LentiVector)	Motor neuron disease	VEGF receptor agonist; Viral vector based gene therapy	Neuroprotectant
596.	**Phase 2	Sanofi-Aventis	Volinanserine	Anxiety disorder; Sleep disorder; Major depressive disorder	5-HT 2a antagonist	Antipsychotic
597.	Phase 1	Vasogen Inc	VP-025	Alzheimers disease; Motor neurone disease; Parkinsons disease; Nervous system inflammation; Diabetic retinopathy	Cytokine modulator	Neuroprotectant; Nootropic agent; Anti-inflammatory
598.	*No development reported (Discovery)	Vertex Pharmaceuticals Inc; Taisho Pharmaceutical Co Ltd	VX-799	Sepsis; Inflammation; Neurodegenerative disease; Cardiovascular disease; Cerebral infarction; Cerebrovascular ischemia	Caspase inhibitor; Apoptosis inhibitor	Neuroprotectant; Vasoprotectant; Anti-inflammatory
599.	Phase 3	Sanofi-Aventis	Xaliprodone	Alzheimers disease; Motor neurone disease; Neuropathy; Multiple sclerosis; Neurodegenerative disease; Neurotoxicity, drug induced	5-HT 1a agonist; Apoptosis inhibitor	Neuroprotectant; Nootropic agent

	Highest Dev. Status	Company	Drug	Indication	Mode of Action	Drug Effect
600.	Discovery	Bristol-Myers Squibb Pharma Co	XE-991	Alzheimers disease	Potassium channel modulator; Acetylcholine release stimulator	Neuroprotectant
601.	Phase 1	Mitsubishi Pharma Corp	Y-931	Schizophrenia	Benzodiazepine agonist	Antipsychotic
602.	Discovery	Yungjin Pharmaceutical Co Ltd/Korea Research Institute of Chemical Technology	YJP-60107	Neurodegenerative disease	Caspase-3 inhibitor	Neuroprotectant
603.	Phase 1	SK Bio-Pharmaceuticals	YKP-1358	Schizophrenia	Dopamine D2 antagonist	Antipsychotic
604.	**Phase 3	Yuyu Inc	YY-280	Cardiovascular disease; Cerebrovascular ischemia	Free radical scavenger; PAF receptor antagonist; Platelet aggregation inhibitor	
605.	Discovery	University of Gottingen	ZK-808762	Alzheimers disease	Factor Xa antagonist; Beta amyloid modulator; Serine protease inhibitor	

Glossary

No Development Reported: No evidence of continuing development has been reported for the past 18 months.

Discontinued: Confirmation from the company source that in-house development has been terminated.

Research Tool: Compounds that are not used as a drug, but are needed to investigate the function of a specific compound, which might result in a drug.

Discovery: Late research state, preparation for human testing; adaptation of research chemical synthesis (mg) to larger scale (kg), selection of salt form, selection of galenical form, design of clinical proof of concept studies, definition of endpoints, selection of biomarkers for clinical testing, additional safety testing, IND (investigational new drug) filing, clinical ethical review boards.

Phase 1: Clinical testing; tolerance in humans, repeated dosing, some escalation; proof of therapeutic concept or mechanism using scientific evaluation methods in a limited number of volunteers or patients.

Phase 2: Dose-finding studies, statistics, double blind studies.

Phase 3: Proof of efficacy, comparison to standard therapy, statistics, double blind studies with up to thousands of patients. Final phase of testing before registration and license to market.

Sources

'Investigational Drugs database, Copyright Current Drugs 2007, <http://www.iddb3.com>'

'The Final Neuroprotection Report, Bolt International Healthcare & Pharmaceutical Research, February 2003'

These sources were amended whenever the authors found more accurate information on the websites of companies.

Disclaimer

The authors do not warrant or assume any legal liability or responsibility for the accuracy, completeness, or usefulness of the information in the article. It is not the intention of the authors to provide medical advice or to promote or endorse any medical practice, test or program, but rather to provide readers with information to better understand neurodegenerative diseases. The authors are not responsible for errors in or omissions of information contained in the article or any actions resulting from the use of such information. Readers are encouraged to confirm the information in the article with other reliable sources.