

SAGE Therapeutics Inc

CORTELLIS COMPANY DETAILED PIPELINE REPORT

A comprehensive coverage of the the company's drug pipeline portfolio including detailed product records.

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ABOUT CORTELLIS COMPANY DETAILED PIPELINE REPORT

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GLOSSARY

Number of Drugs in Active Development

Number of drugs associated with the company or subsidiary that are currently in active development, i.e. the development status for the drug(s) is one of the following: Discovery, Clinical, Phase I, Phase II, Phase III, Pre-registration, Registered, Launched, or Suspended.

Number of Inactive Drugs

Number of drugs associated with the company or subsidiary that are currently classified as inactive, i.e. where the development status for the drug(s) is one of the following: No Development Reported, Discontinued, or Withdrawn.

Number of Patents as Owner

Number of patents associated with the company where the company is listed as owner; i.e. the relationship type (or way the patent refers to the company) is: Patent Assignee/Owner, Patent owner (not assignee), Licensee for development and marketing, Licensee – marketing only (Distributor), Patent assignee of family member, Inferred assignee.

Number of Patents as Third Party

Number of patents associated with the company where the company is listed as third party; i.e. the relationship type (or way the patent refers to the company) is: Patent assignee (not owner), Ex-Licensee for development and marketing, Ex-Licensee marketing only (Distributor), Customer of technology, Ex-Customer of technology, Patent opponent or infringer, Affiliate organization of inventor, Owner of underlying technology.

Patents summary table

This table represents a summary of the core patent coverage for this company covering Therapeutic EP, US and WO patents since 1990 only.

Number of Deals

A count of deals where the company or one of its subsidiaries is the primary company.

Key Indications

Displays top ten key indications for the company and its subsidiaries based on frequency (indications occurring with high and identical frequency are always included, and this may result in more than ten Key Indications being listed). Includes both indications associated with patents where the company is patent owner and indications associated with drugs in active development. A drug is classified as 'active' if it features on a row (or rows) in the current development status table where the status is one of the following: Discovery, Clinical, Phase I, Phase II, Phase III, Pre-registration, Registered, Launched, or Suspended.

Key Target-based Actions

Displays top ten key target-based actions for the company and its subsidiaries based on frequency (actions occurring with high and identical frequency are always included, and this may result in more than ten Key Target-based Actions being listed). Includes both target-based actions associated with patents where the company patent owner and target-based actions associated with drugs in active development. A drug is classified as 'active' if it features on a row (or rows) in the current development status table where the status is one of the following: Discovery, Clinical, Phase I, Phase II, Phase III, Pre-registration, Registered, Launched, or Suspended. A target-based action is one that is associated with a target.

Key Technologies

Displays top ten key technologies for the company and its subsidiaries based on frequency (technologies occurring with high and identical frequency are always included, and this may result in more than ten Key Technologies being listed). Includes both key technologies associated with patents where the company relationship is patent owner and key technologies associated with drugs in active development. A drug is classified as 'active' if it features on a row (or rows) in the current development status table where the status is one of the following: Discovery, Clinical, Phase I, Phase II, Phase III, Pre-registration, Registered, Launched, or Suspended.

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SAGE Therapeutics Inc

COMPANY OVERVIEW

| | |
|---------------------------------------|---|
| Company Name | SAGE Therapeutics Inc |
| Parent Company Name | SAGE Therapeutics Inc |
| Website | http://www.sagerx.com/ |
| Country | US |
| Number of Drugs in Active Development | 8 |
| Number of Inactive Drugs | 2 |
| Number of Patents as Owner | 14 |
| Number of Patents as Third Party | 0 |
| Number of Deals | 4 |
| Key Indications | Status epilepticus, Central nervous system disease, Psychiatric disorder, Epilepsy, Anesthesia, Rett syndrome, Essential tremor, Neurological disease, Postnatal depression, Mood disorder |
| Key Target-based Actions | GABA A receptor modulator, NMDA receptor modulator, GABA A receptor alpha-1 subunit modulator, GABA A receptor alpha-4 subunit modulator, GABA A receptor beta-2 subunit inhibitor, GABA A receptor beta-3 subunit inhibitor, GABA A receptor delta subunit modulator, GABA A receptor gamma-2 subunit inhibitor, GABA A receptor agonist, GABA A receptor alpha-1 subunit stimulator, GABA A receptor beta-2 subunit stimulator, GABA A receptor gamma-2 subunit stimulator, GABA B receptor agonist, GABA receptor antagonist, GABA receptor modulator, NMDA receptor agonist |
| Key Technologies | Small molecule therapeutic, Intravenous formulation, Oral formulation, Steroid, Infusion, Analytical method, Pharmaceutical carrier |

COMPANY PROFILE

SUMMARY

SAGE Therapeutics is a pharmaceutical company, focused on developing medicines for central nervous system disorders.

FINANCIAL

In July 2014, the company announced the pricing of its initial public offering of 5 million shares of common stock at a price of \$18 per share. The underwriters were also granted a 30-day option to buy up to an additional 0.75 shares at the same offering price to cover over-allotments, if any. The company's shares were expected to begin trading on the NASDAQ Global market on July 18, 2014, under the ticker symbol 'SAGE'. Later that month, the underwriters exercised their full option to purchase additional shares of the IPO. At that time, the company raised a capital of \$103.5 million from a total of 5.75 million shares sold and the offering was closed.

In March 2014, the company raised \$38 million from an oversubscribed series C financing.

In October 2013, the company raised \$20 million from a series B financing.

In October 2011, SAGE secured \$35 million in series A financing. By September 2013, the company raised \$37.8 million totally from the completion of series A financing.

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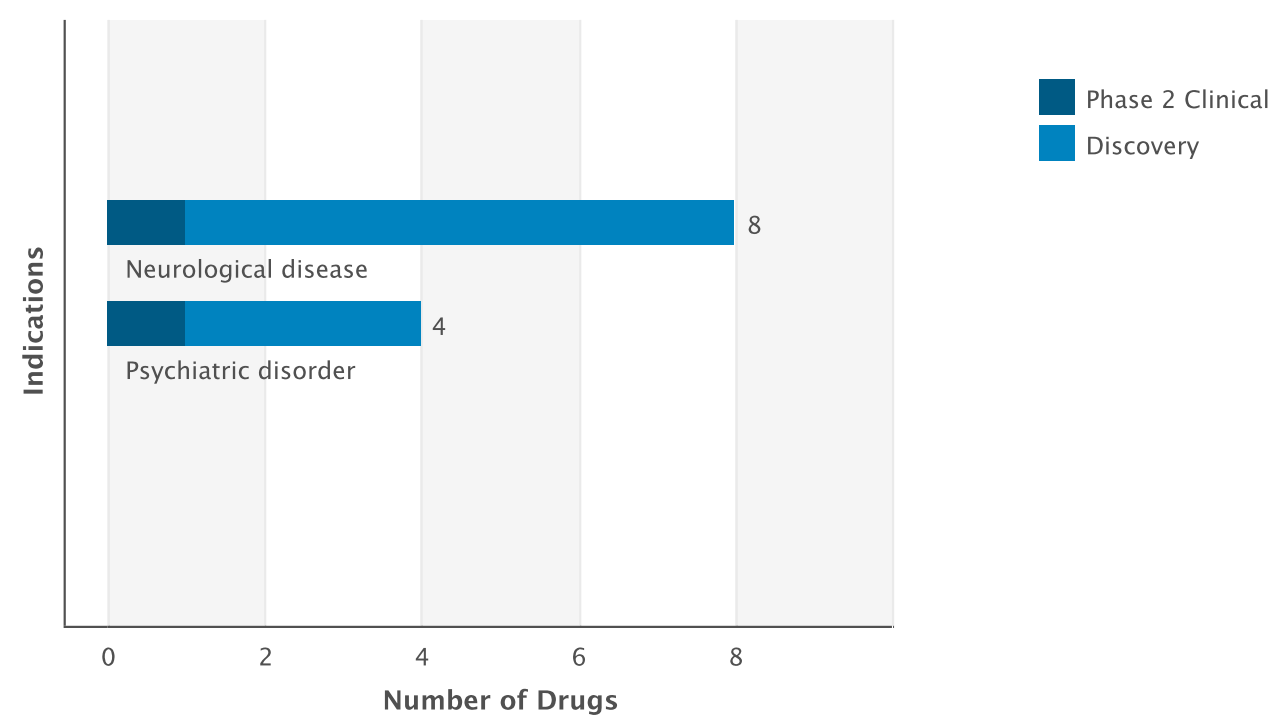


PRODUCT PORTFOLIO SUMMARY

DRUGS

Drugs by Indication

Active Drugs by Indication Chart



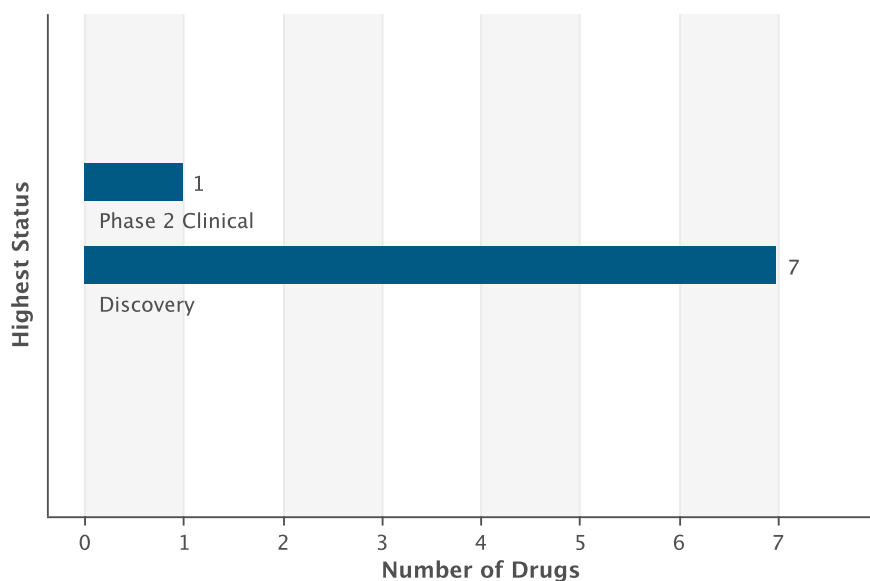
Drugs by Indication Table

| Indication | Active | Inactive | Total |
|----------------------|--------|----------|-------|
| Neurological disease | 8 | 2 | 10 |
| Psychiatric disorder | 4 | 0 | 4 |
| Injury | 0 | 1 | 1 |

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Drugs by Highest Status

Active Drugs by Highest Status Chart



Drugs by Highest Status Table

| Development Status | Number of Drugs |
|-------------------------|-----------------|
| Phase 2 Clinical | 1 |
| Discovery | 7 |
| No Development Reported | 2 |

DEALS

| Deal Type | Principal | | Partner | | Total |
|--|-----------|----------|---------|----------|-------|
| | Active | Inactive | Active | Inactive | |
| Technology - Other Proprietary | 0 | 0 | 1 | 0 | 1 |
| Drug - Funding | 1 | 0 | 0 | 0 | 1 |
| Drug - Early Research/Development | 0 | 0 | 1 | 0 | 1 |
| Drug - Development/Commercialization License | 0 | 0 | 1 | 0 | 1 |

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CLINICAL TRIALS

Trials by Condition Studied

| Condition Studied | Ongoing | All |
|----------------------|---------|-----|
| Neurological disease | 2 | 6 |
| Psychiatric disorder | 1 | 1 |

Trials by Phase

| Phase | Ongoing | All |
|---------------------|---------|-----|
| Phase 2 | 2 | 4 |
| Phase 1 | 1 | 1 |
| Phase not specified | 0 | 2 |

Phase Definitions

Phase 3 Clinical

Includes Phase 3, Phase 3b, Phase 3a, Phase 2/3 (where enrolment count is 300 or over)

Phase 2 Clinical

Includes Phase 2, Phase 2a, Phase 2b, Phase 1/2 (where enrolment count is 100 or over), Phase 2/3 (where enrolment count is under 300 or not specified)

Phase 1 Clinical

Includes Phase 1, Phase 1a, Phase 1, Phase 1/2 (where enrolment count is under 100 or not specified), Phase 0

PATENTS *

| Indication | As Owner | As Third Party | Total |
|--------------------------------|----------|----------------|-------|
| Cardiovascular disease | 6 | 0 | 6 |
| Degeneration | 1 | 0 | 1 |
| Psychiatric disorder | 11 | 0 | 11 |
| Genetic disorder | 7 | 0 | 7 |
| Neurological disease | 15 | 0 | 15 |
| Injury | 7 | 0 | 7 |
| Toxicity and intoxication | 10 | 0 | 10 |
| Otorhinolaryngological disease | 6 | 0 | 6 |

* This table represents a summary of the core patent coverage for this company covering Therapeutic EP, US and WO patents since 1990 only.

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PRODUCT PORTFOLIO DRUG PIPELINE DETAIL

PLEASE NOTE: Highest status refers to highest development of that drug for one of the active companies

SAGE-547

SAGE-547 SNAPSHOT

| | |
|-----------------------------|---|
| Drug Name | SAGE-547 |
| Key Synonyms | |
| Originator Company | SAGE Therapeutics Inc |
| Active Companies | SAGE Therapeutics Inc |
| Inactive Companies | |
| Highest Status | Phase 2 Clinical |
| Active Indications | Status epilepticus;Postnatal depression;Essential tremor |
| Target-based Actions | GABA A receptor modulator |
| Other Actions | Neuroprotectant;Anticonvulsant agent |
| Technologies | Intravenous formulation;Infusion;Small molecule therapeutic |
| Last Change Date | 13-Nov-2014 |

SAGE-547 DEVELOPMENT PROFILE

SUMMARY

SAGE Therapeutics is developing SAGE-547 (SGE-102, allopregnanolone), the lead from an allosteric GABA A receptor modulator program that incorporates Ligand's Captisol technology, for the potential iv treatment of status epilepticus, essential tremor and postpartum depression ,,,. In January 2014, a phase I/II trial for refractory status epilepticus was initiated; in June 2014, preliminary data were presented . In October 2014, the first patient was dosed in a phase IIa trial for essential tremor. In November 2014, data from a trial in pediatric patients were published. Later that month, the company was planning to initiate a pivotal trial in the first half of 2015. In September 2014, a phase II study was initiated in the US in patients with severe postpartum depression. The trial was expected to complete in March 2015. In March 2014, the company was seeking to outlicense its programs.

SAGE-547 DEVELOPMENT STATUS

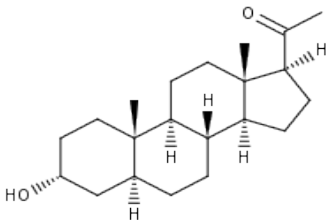
CURRENT DEVELOPMENT STATUS

| Company | Indication | Country | Development Status | Date |
|-----------------------|----------------------|---------|--------------------|-------------|
| SAGE Therapeutics Inc | Essential tremor | US | Phase 2 Clinical | 23-Oct-2014 |
| SAGE Therapeutics Inc | Postnatal depression | US | Phase 2 Clinical | 30-Sep-2014 |
| SAGE Therapeutics Inc | Status epilepticus | US | Phase 2 Clinical | 16-Jan-2014 |

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SAGE-547 CHEMICAL STRUCTURES

| CAS Registry Number: | Confidence Level: |
|---|-------------------|
| 516-54-1 | 3 |
|  | |
| Name | Type |
| LJPC-0712 | Research Code |
| allopregnanolone | |
| allopregnan-3alpha-ol-20-one | |
| epiallopregnanolone | |

SAGE-547 DRUG NAMES

| Names | Type |
|---|---------------|
| SGE-102 | Research Code |
| allopregnanolone | |
| SAGE-547 | Research Code |
| allosteric GABA A receptor modulators (CNS disorders), SAGE | |

SAGE-547 CLINICAL TRIALS

Trials by Phase and Condition Studied

| Phase 4 Clinical | | Phase 3 Clinical | | Phase 2 Clinical | | Phase 1 Clinical | | Phase Unspecified | | Total | |
|--------------------|-----|------------------|-----|------------------|-----|------------------|-----|-------------------|-----|----------|-----|
| On-going | All | On-going | All | On-going | All | On-going | All | On-going | All | On-going | All |
| Status epilepticus | | | | | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 2 | 1 | 4 |
| Essential tremor | | | | | | | | | | | |
| 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 1 | 2 |

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| Postnatal depression | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |

Total Trials by Phase and Status

| Phase 4 Clinical | | Phase 3 Clinical | | Phase 2 Clinical | | Phase 1 Clinical | | Phase Unspecified | | Total | |
|---------------------------|-----|------------------|-----|------------------|-----|------------------|-----|-------------------|-----|----------|-----|
| On-going | All | On-going | All | On-going | All | On-going | All | On-going | All | On-going | All |
| Total by Phase and Status | | | | | | | | | | | |
| 0 | 0 | 0 | 0 | 2 | 4 | 1 | 1 | 0 | 2 | 3 | 7 |

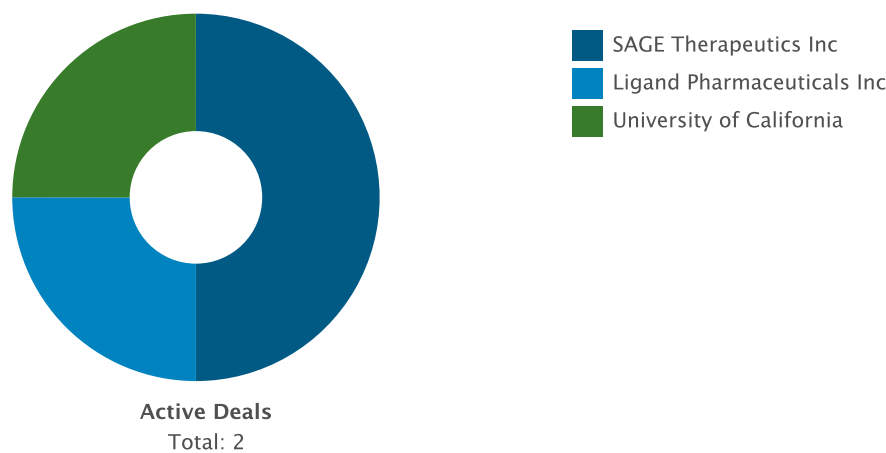
Phase Definitions

| |
|---|
| Phase 3 Clinical |
| Includes Phase 3, Phase 3b, Phase 3a, Phase 2/3 (where enrolment count is 300 or over) |
| Phase 2 Clinical |
| Includes Phase 2, Phase 2a, Phase 2b, Phase 1/2 (where enrolment count is 100 or over), Phase 2/3 (where enrolment count is under 300 or not specified) |
| Phase 1 Clinical |
| Includes Phase 1, Phase 1a, Phase 1, Phase 1/2 (where enrolment count is under 100 or not specified), Phase 0 |

SAGE-547 DEALS AND PATENTS

DEALS

Deals by Parent Company Chart



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Deals by Parent Company Table

| Company Name | Principal | | Partner | | Total |
|----------------------------|-----------|----------|---------|----------|-------|
| | Active | Inactive | Active | Inactive | |
| SAGE Therapeutics Inc | 0 | 0 | 2 | 0 | 2 |
| University of California | 1 | 0 | 0 | 0 | 1 |
| Ligand Pharmaceuticals Inc | 1 | 0 | 0 | 0 | 1 |

Deals by Type Chart



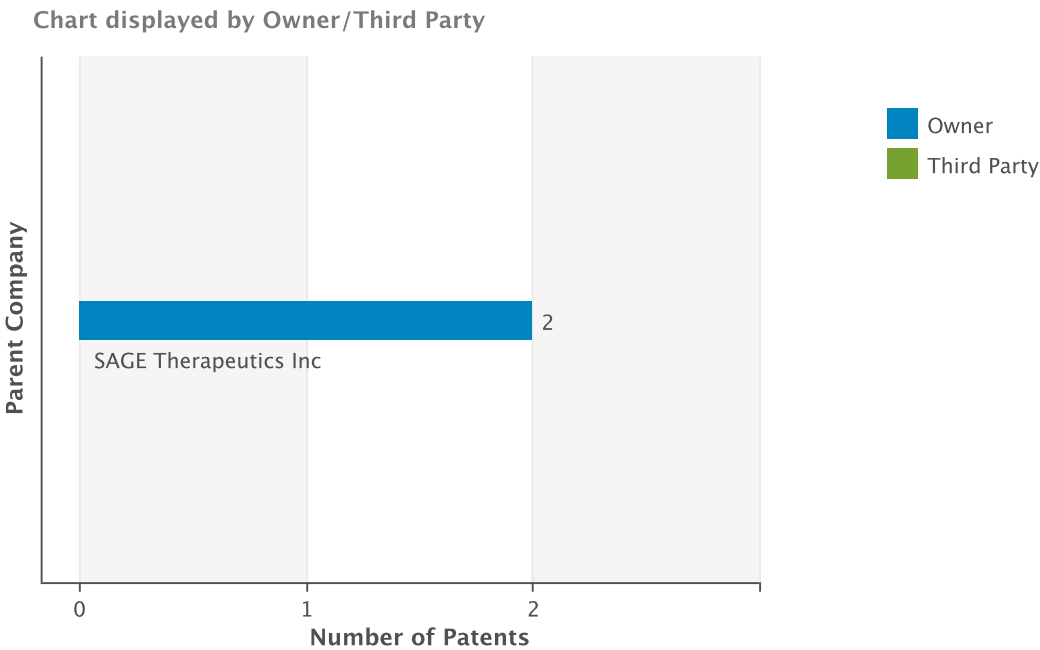
Deals by Type Table

| Deal Type | Active | Inactive | Total |
|-----------------------------------|--------|----------|-------|
| Technology - Other Proprietary | 1 | 0 | 1 |
| Drug - Early Research/Development | 1 | 0 | 1 |

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PATENTS

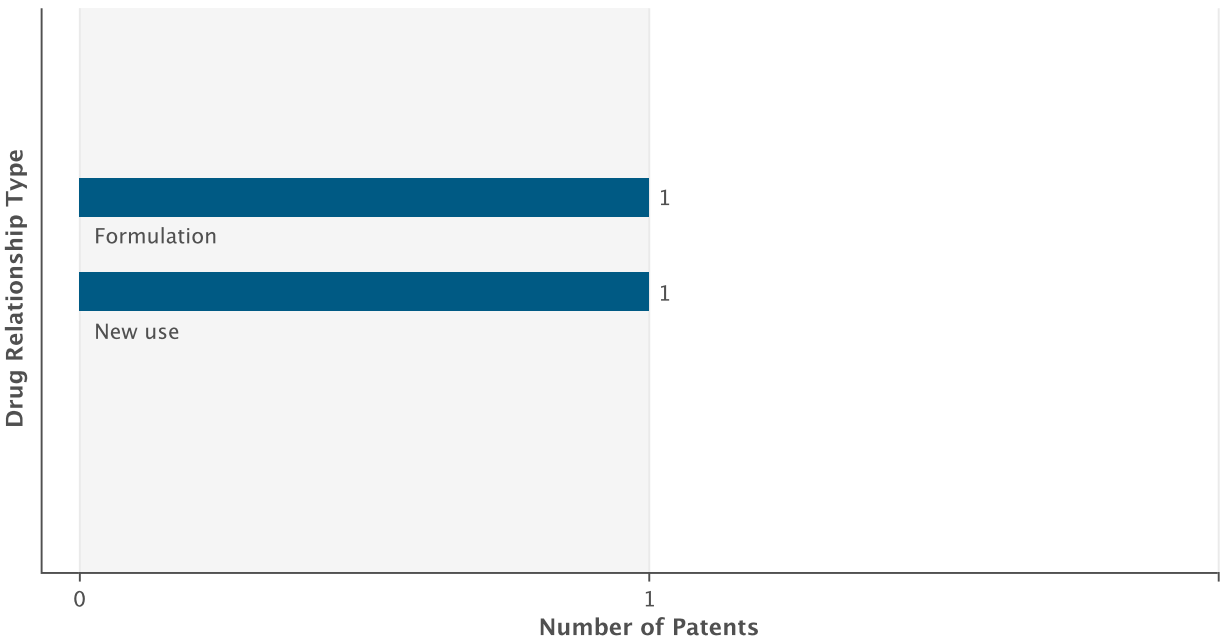
Patents by Parent Company Chart



Patents by Parent Company Table

| Company Name | As Owner | As Third Party | Total |
|-----------------------|----------|----------------|-------|
| SAGE Therapeutics Inc | 2 | 0 | 2 |

Patents by Drug Relationship Type Chart



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Patents by Drug Relationship Type Table

| Drug Relationship | Total |
|-------------------|-------|
| Formulation | 1 |
| New use | 1 |

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SAGE-NCE (oral, status epilepticus), SAGE Therapeutics

SAGE-NCE (oral, status epilepticus), SAGE Therapeutics SNAPSHOT

| | |
|----------------------|--|
| Drug Name | SAGE-NCE (oral, status epilepticus), SAGE Therapeutics |
| Key Synonyms | |
| Originator Company | SAGE Therapeutics Inc |
| Active Companies | SAGE Therapeutics Inc |
| Inactive Companies | |
| Highest Status | Discovery |
| Active Indications | Status epilepticus |
| Target-based Actions | GABA A receptor modulator |
| Other Actions | Anticonvulsant agent;Neuroprotectant |
| Technologies | Oral formulation;Small molecule therapeutic |
| Last Change Date | 09-Apr-2014 |

SAGE-NCE (oral, status epilepticus), SAGE Therapeutics DEVELOPMENT PROFILE

SUMMARY

SAGE Therapeutics is investigating SAGE-NCE, next generation GABA A positive allosteric modulators, as an oral stepdown therapy, for the potential treatment of status epilepticus and other forms of seizures and epilepsy,. In August 2013, development was ongoing. In December 2013, preclinical data were presented . In March 2014, the company was seeking to outlicense its programs.

The company is also developing SAGE-547, an allosteric GABA A receptor modulator for the treatment of Status epilepticus and is investigating other positive allosteric modulators of GABA A receptors, for the treatment of fragile X syndrome and an iv formulation of SAGE-NCE for the treatment of status epilepticus and other forms of seizures and epilepsy.

SAGE-NCE (oral, status epilepticus), SAGE Therapeutics DEVELOPMENT STATUS

CURRENT DEVELOPMENT STATUS

| Company | Indication | Country | Development Status | Date |
|-----------------------|--------------------|---------|--------------------|-------------|
| SAGE Therapeutics Inc | Status epilepticus | US | Discovery | 12-Aug-2013 |

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SAGE-NCE (oral, status epilepticus), SAGE Therapeutics DRUG NAMES

| Names | Type |
|---|------|
| next generation GABA A allosteric modulator (oral, status epilepticus), SAGE Therapeutics | |
| SAGE-NCE (oral, status epilepticus), SAGE Therapeutics | |
| next generation GABA A allosteric modulator (status epilepticus), SAGE Therapeutics | |

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SAGE-689

SAGE-689 SNAPSHOT

| | |
|----------------------|---|
| Drug Name | SAGE-689 |
| Key Synonyms | |
| Originator Company | SAGE Therapeutics Inc |
| Active Companies | SAGE Therapeutics Inc |
| Inactive Companies | |
| Highest Status | Discovery |
| Active Indications | Status epilepticus;Anesthesia |
| Target-based Actions | |
| Other Actions | Anesthetic;Unspecified drug target;Anticonvulsant agent |
| Technologies | Intravenous formulation;Small molecule therapeutic |
| Last Change Date | 09-Apr-2014 |

SAGE-689 DEVELOPMENT PROFILE

SUMMARY

SAGE Therapeutics is investigating SAGE-689 (SGE-689; SGE-202), for the potential iv use as an anesthetic and for the potential treatment of status epilepticus,. In April 2013, the drug was listed as being in preclinical development as an anesthetic ; in March 2014, the drug was listed as being in preclinical development for both neuroanesthesia and status epilepticus. In January 2014, the trial was to begin in the third quarter of 2014. In March 2014, the company was seeking to outlicense its programs.

SAGE-689 DEVELOPMENT STATUS

CURRENT DEVELOPMENT STATUS

| Company | Indication | Country | Development Status | Date |
|-----------------------|--------------------|---------|--------------------|-------------|
| SAGE Therapeutics Inc | Anesthesia | US | Discovery | 12-Apr-2013 |
| SAGE Therapeutics Inc | Status epilepticus | US | Discovery | 27-Mar-2014 |

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SAGE-689 DRUG NAMES

| Names | Type |
|--|---------------|
| SGE-202 | Research Code |
| SGE-689 | Research Code |
| SAGE-689 | Research Code |
| anesthetic (intravenous, anesthesia), SAGE Therapeutics | |

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allosteric NMDA receptor modulators (CNS disorders), SAGE

allosteric NMDA receptor modulators (CNS disorders), SAGE SNAPSHOT

| | |
|----------------------|---|
| Drug Name | allosteric NMDA receptor modulators (CNS disorders), SAGE |
| Key Synonyms | |
| Originator Company | SAGE Therapeutics Inc |
| Active Companies | SAGE Therapeutics Inc |
| Inactive Companies | |
| Highest Status | Discovery |
| Active Indications | Psychiatric disorder;Central nervous system disease |
| Target-based Actions | NMDA receptor modulator |
| Other Actions | Neuroprotectant |
| Technologies | Small molecule therapeutic |
| Last Change Date | 09-Apr-2014 |

allosteric NMDA receptor modulators (CNS disorders), SAGE DEVELOPMENT PROFILE

SUMMARY

SAGE Therapeutics is investigating a program of positive and negative allosteric modulators of NMDA receptors and class of glutamate receptors, including SGE-301, for the potential treatment of CNS disorders and also investigating other NMDA receptor modulator, for the treatment of psychiatric disorder including schizophrenia, autism, depression and pain, and CNS disorders including epilepsy, Alzheimer's disease, Parkinson's disease,.. In August 2013, the program was listed as being in preclinical development. In April 2012, the company expected to initiate clinical trials in its lead program within two years. In March 2014, the company was seeking to outlicense its programs.

allosteric NMDA receptor modulators (CNS disorders), SAGE DEVELOPMENT STATUS

CURRENT DEVELOPMENT STATUS

| Company | Indication | Country | Development Status | Date |
|-----------------------|--------------------------------|---------|--------------------|-------------|
| SAGE Therapeutics Inc | Central nervous system disease | US | Discovery | 18-Oct-2011 |
| SAGE Therapeutics Inc | Psychiatric disorder | US | Discovery | 17-Jan-2014 |

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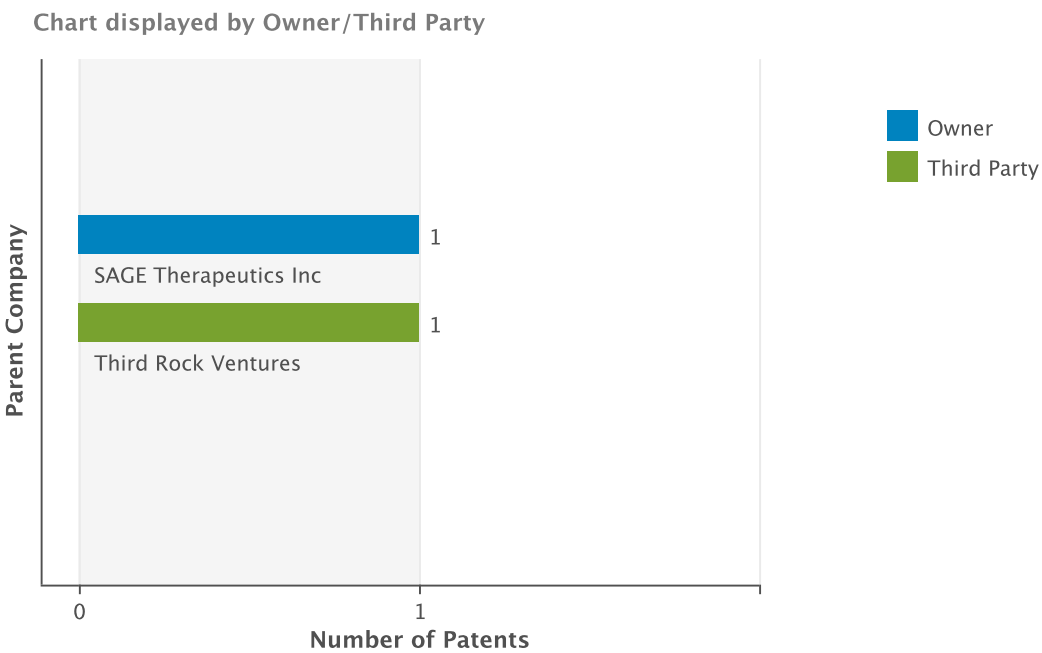
allosteric NMDA receptor modulators (CNS disorders), SAGE DRUG NAMES

| Names | Type |
|--|---------------|
| allosteric NMDA receptor modulators (CNS disorders), SAGE | |
| allosteric glutamate receptor modulators (CNS disorders), SAGE | |
| SGE-301 | Research Code |

allosteric NMDA receptor modulators (CNS disorders), SAGE DEALS AND PATENTS

PATENTS

Patents by Parent Company Chart

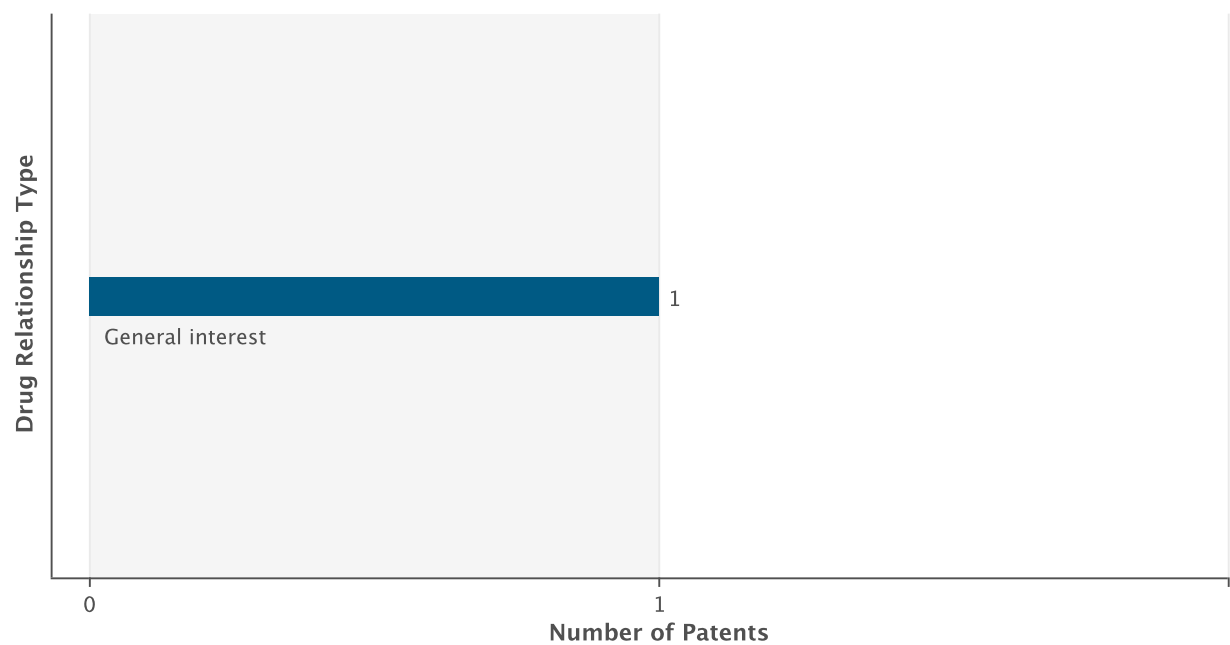


Patents by Parent Company Table

| Company Name | As Owner | As Third Party | Total |
|-----------------------|----------|----------------|-------|
| SAGE Therapeutics Inc | 1 | 0 | 1 |
| Third Rock Ventures | 0 | 1 | 1 |

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Patents by Drug Relationship Type Chart



Patents by Drug Relationship Type Table

| Drug Relationship | Total |
|-------------------|-------|
| General interest | 1 |

allosteric modulators (Captisol, CNS disorders), Ligand/ SAGE

allosteric modulators (Captisol, CNS disorders), Ligand/ SAGE SNAPSHOT

| | |
|----------------------|---|
| Drug Name | allosteric modulators (Captisol, CNS disorders), Ligand/ SAGE |
| Key Synonyms | |
| Originator Company | Ligand Pharmaceuticals Inc |
| Active Companies | SAGE Therapeutics Inc;Ligand Pharmaceuticals Inc |
| Inactive Companies | |
| Highest Status | Discovery |
| Active Indications | Central nervous system disease |
| Target-based Actions | |
| Other Actions | Unspecified drug target;CNS modulator |
| Technologies | Small molecule therapeutic |
| Last Change Date | 09-Aug-2012 |

allosteric modulators (Captisol, CNS disorders), Ligand/ SAGE DEVELOPMENT PROFILE

SUMMARY

Ligand Pharmaceuticals and licensee SAGE Therapeutic are investigating allosteric receptor modulators that use Ligand's Captisol technology, for the potential treatment of CNS diseases. In October 2011, preclinical development was ongoing. In April 2012, SAGE expected to initiate clinical trials in its lead program within two years.

allosteric modulators (Captisol, CNS disorders), Ligand/ SAGE DEVELOPMENT STATUS

CURRENT DEVELOPMENT STATUS

| Company | Indication | Country | Development Status | Date |
|----------------------------|--------------------------------|---------|--------------------|-------------|
| Ligand Pharmaceuticals Inc | Central nervous system disease | US | Discovery | 13-Oct-2011 |
| SAGE Therapeutics Inc | Central nervous system disease | US | Discovery | 13-Oct-2011 |

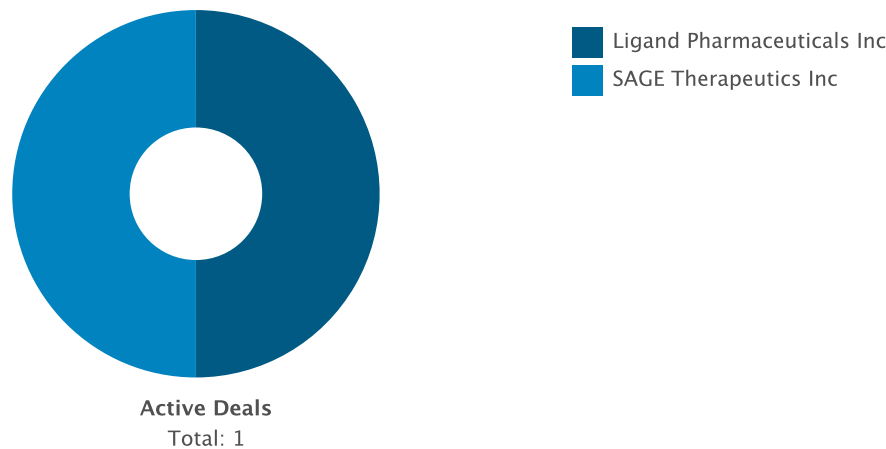
allosteric modulators (Captisol, CNS disorders), Ligand/ SAGE DRUG NAMES

| Names | Type |
|---|------|
| allosteric modulators (Captisol, CNS disorders), Ligand/ SAGE | |

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DEALS

Deals by Parent Company Chart

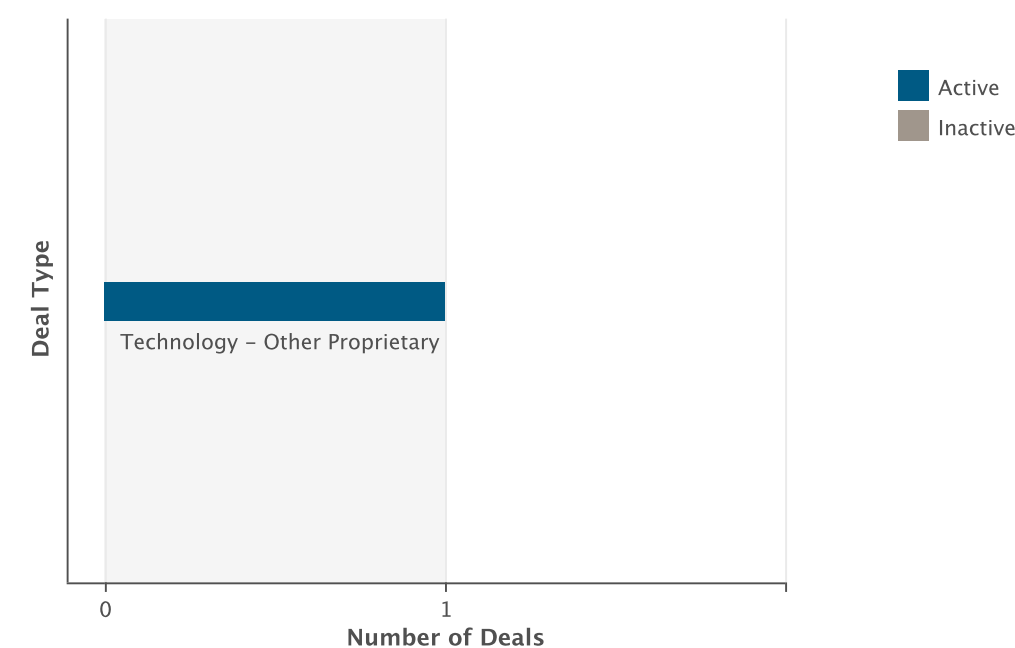


Deals by Parent Company Table

| Company Name | Principal | | Partner | | Total |
|----------------------------|-----------|----------|---------|----------|-------|
| | Active | Inactive | Active | Inactive | |
| Ligand Pharmaceuticals Inc | 1 | 0 | 0 | 0 | 1 |
| SAGE Therapeutics Inc | 0 | 0 | 1 | 0 | 1 |

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Deals by Type Chart



Deals by Type Table

| Deal Type | Active | Inactive | Total |
|--------------------------------|--------|----------|-------|
| Technology - Other Proprietary | 1 | 0 | 1 |

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GABA A allosteric modulators (neuropsychiatric diseases), SAGE Therapeutics / Washington University in St. Louis

GABA A allosteric modulators (neuropsychiatric diseases), SAGE Therapeutics / Washington University in St. Louis SNAPSHOT

| | |
|-----------------------------|--|
| Drug Name | GABA A allosteric modulators (neuropsychiatric diseases), SAGE Therapeutics / Washington University in St. Louis |
| Key Synonyms | |
| Originator Company | SAGE Therapeutics Inc |
| Active Companies | Washington University in St Louis;SAGE Therapeutics Inc |
| Inactive Companies | |
| Highest Status | Discovery |
| Active Indications | Neurological disease;Psychiatric disorder |
| Target-based Actions | GABA A receptor modulator |
| Other Actions | Neuroprotectant |
| Technologies | Small molecule therapeutic |
| Last Change Date | 26-Nov-2014 |

GABA A allosteric modulators (neuropsychiatric diseases), SAGE Therapeutics / Washington University in St. Louis DEVELOPMENT PROFILE

SUMMARY

SAGE Therapeutics is collaborating with Washington University in St. Louis to investigate small molecule GABAA receptor allosteric modulators, including SGE-516, using SAGE's Positive and Negative Allosteric Modulator (PANAM) platform and the University's technology, for the potential treatment of neuropsychiatric diseases, including seizures . In November 2014, preclinical data were presented.

GABA A allosteric modulators (neuropsychiatric diseases), SAGE Therapeutics / Washington University in St. Louis DEVELOPMENT STATUS

CURRENT DEVELOPMENT STATUS

| Company | Indication | Country | Development Status | Date |
|-----------------------------------|----------------------|---------|--------------------|-------------|
| SAGE Therapeutics Inc | Neurological disease | US | Discovery | 19-Dec-2013 |
| SAGE Therapeutics Inc | Psychiatric disorder | US | Discovery | 19-Dec-2013 |
| Washington University in St Louis | Neurological disease | US | Discovery | 19-Dec-2013 |
| Washington University in St Louis | Psychiatric disorder | US | Discovery | 19-Dec-2013 |

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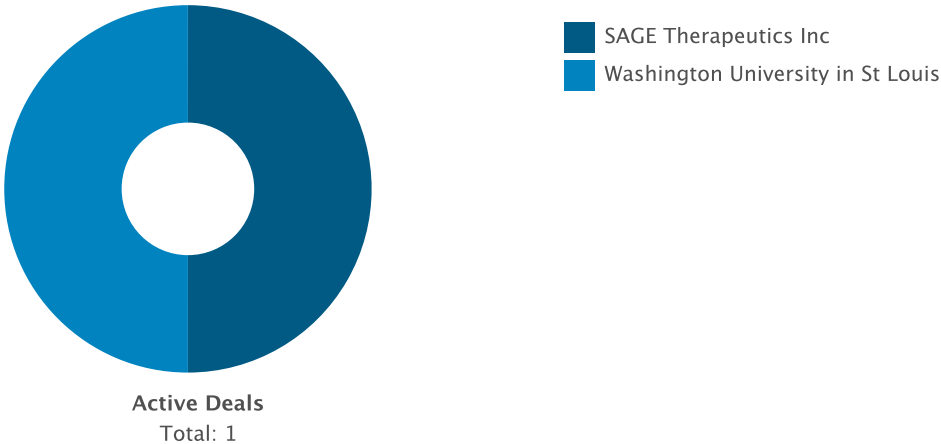
GABA A allosteric modulators (neuropsychiatric diseases), SAGE Therapeutics / Washington University in St. Louis DRUG NAMES

| Names | Type |
|--|---------------|
| SGE-516 | Research Code |
| GABA A allosteric modulators (neuropsychiatric diseases), SAGE Therapeutics / Washington University in St. Louis | |

GABA A allosteric modulators (neuropsychiatric diseases), SAGE Therapeutics / Washington University in St. Louis DEALS AND PATENTS

DEALS

Deals by Parent Company Chart

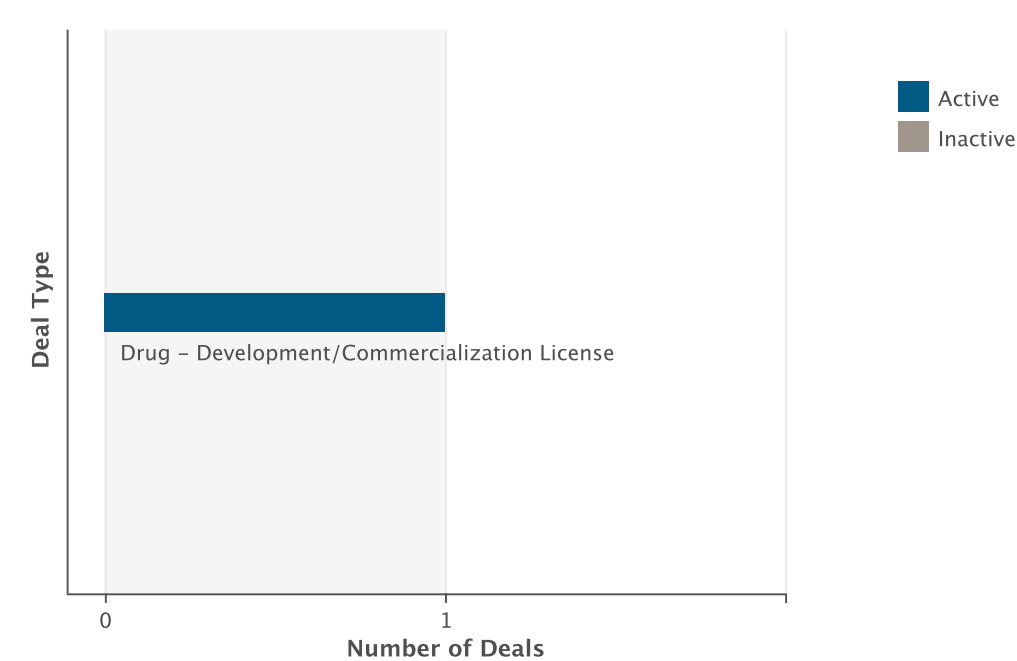


Deals by Parent Company Table

| Company Name | Principal | | Partner | | Total |
|-----------------------------------|-----------|----------|---------|----------|-------|
| | Active | Inactive | Active | Inactive | |
| SAGE Therapeutics Inc | 0 | 0 | 1 | 0 | 1 |
| Washington University in St Louis | 1 | 0 | 0 | 0 | 1 |

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Deals by Type Chart



Deals by Type Table

| Deal Type | Active | Inactive | Total |
|--|--------|----------|-------|
| Drug - Development/Commercialization License | 1 | 0 | 1 |

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SAGE-NCE (iv, status epilepticus), SAGE Therapeutics

SAGE-NCE (iv, status epilepticus), SAGE Therapeutics SNAPSHOT

| | |
|----------------------|--|
| Drug Name | SAGE-NCE (iv, status epilepticus), SAGE Therapeutics |
| Key Synonyms | |
| Originator Company | SAGE Therapeutics Inc |
| Active Companies | SAGE Therapeutics Inc |
| Inactive Companies | |
| Highest Status | Discovery |
| Active Indications | Status epilepticus |
| Target-based Actions | GABA A receptor modulator |
| Other Actions | Neuroprotectant;Anticonvulsant agent |
| Technologies | Intravenous formulation;Small molecule therapeutic |
| Last Change Date | 09-Apr-2014 |

SAGE-NCE (iv, status epilepticus), SAGE Therapeutics DEVELOPMENT PROFILE

SUMMARY

SAGE Therapeutics is an iv formulation of SAGE-NCE, next generation GABA A positive allosteric modulators, for the potential iv treatment of status epilepticus and other forms of seizures and epilepsy. In March 2014, the program was listed as being in preclinical development. At that time, the company was seeking to outlicense its programs.

SAGE-NCE (iv, status epilepticus), SAGE Therapeutics DEVELOPMENT STATUS

CURRENT DEVELOPMENT STATUS

| Company | Indication | Country | Development Status | Date |
|-----------------------|--------------------|---------|--------------------|-------------|
| SAGE Therapeutics Inc | Status epilepticus | US | Discovery | 27-Mar-2014 |

SAGE-NCE (iv, status epilepticus), SAGE Therapeutics DRUG NAMES

| Names | Type |
|--|------|
| SAGE-NCE (iv, status epilepticus), SAGE Therapeutics | |
| next generation GABA A allosteric modulator (iv, status epilepticus), SAGE Therapeutic | |

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SAGE-217

SAGE-217 SNAPSHOT

| | |
|----------------------|---|
| Drug Name | SAGE-217 |
| Key Synonyms | |
| Originator Company | SAGE Therapeutics Inc |
| Active Companies | SAGE Therapeutics Inc |
| Inactive Companies | |
| Highest Status | Discovery |
| Active Indications | Rett syndrome;Epilepsy |
| Target-based Actions | GABA A receptor modulator |
| Other Actions | Neuroprotectant;Anticonvulsant agent |
| Technologies | Oral formulation;Small molecule therapeutic;Steroid |
| Last Change Date | 12-Nov-2014 |

SAGE-217 DEVELOPMENT PROFILE

SUMMARY

SAGE is investigating SAGE-217, a second generation oral neuroactive steroid which acts as a positive allosteric modulator of synaptic and extra-synaptic GABAA receptor subtypes, for the potential treatment of epilepsy disorders including Rett syndrome, Dravet syndrome and status epilepticus. In September 2014, preclinical data were presented. In November 2014, the company was planning to file an IND in late 2015 .

SAGE-217 DEVELOPMENT STATUS

CURRENT DEVELOPMENT STATUS

| Company | Indication | Country | Development Status | Date |
|-----------------------|---------------|---------|--------------------|-------------|
| SAGE Therapeutics Inc | Epilepsy | US | Discovery | 02-Sep-2014 |
| SAGE Therapeutics Inc | Rett syndrome | US | Discovery | 02-Sep-2014 |

SAGE-217 DRUG NAMES

| Names | Type |
|---|---------------|
| GABA A allosteric modulator (oral/steroid, epilepsy disorders), SAGE therapeutics | |
| SAGE-217 | Research Code |

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